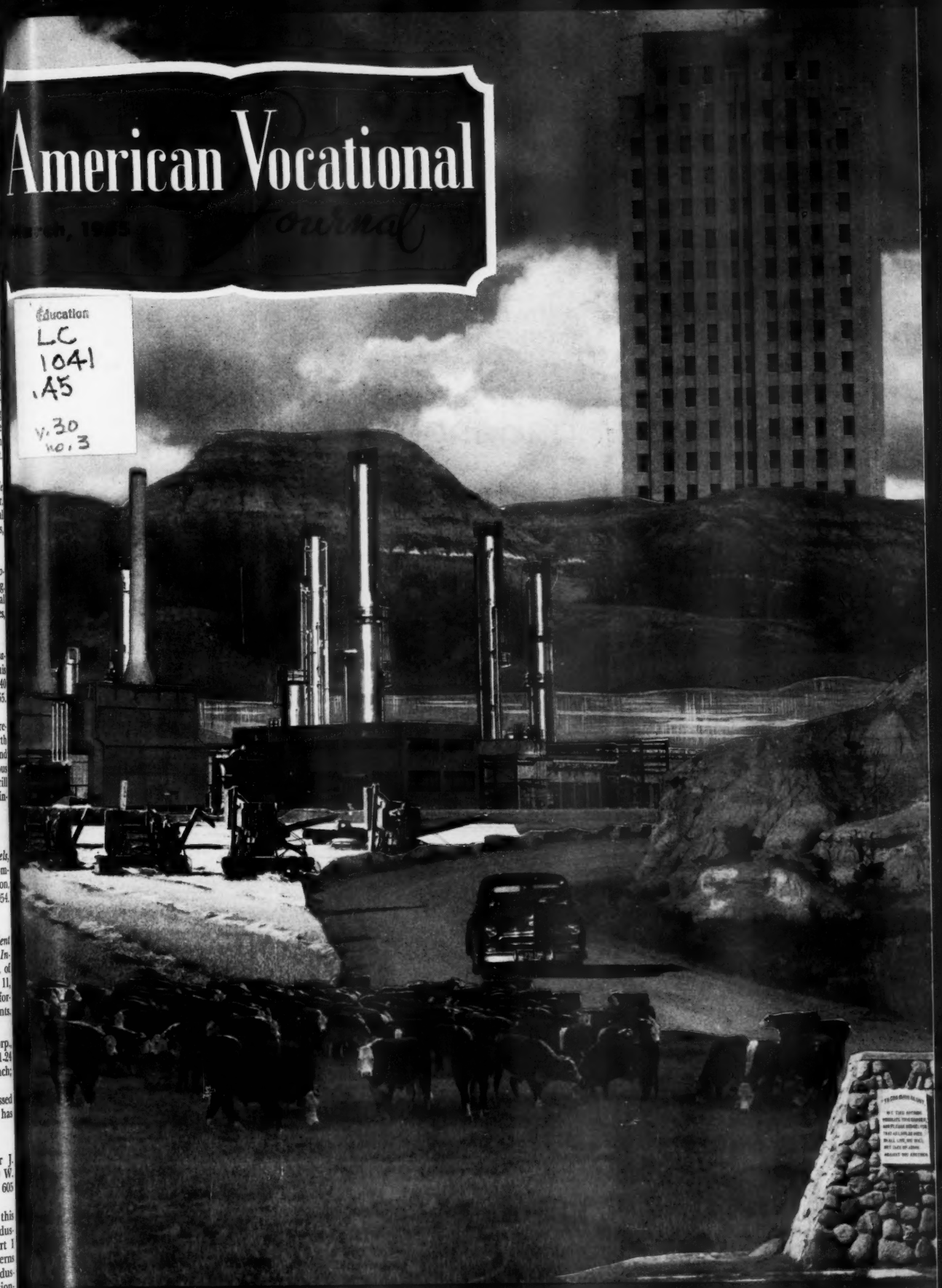
American Vocational Journal

Education
LC
1041
.A5
v.30
no.3



the journal salutes North Dakota

Industrial Arts Teachers:

FORD'S 1955 I.A.A.

competition emphasizes creative design and ingenuity

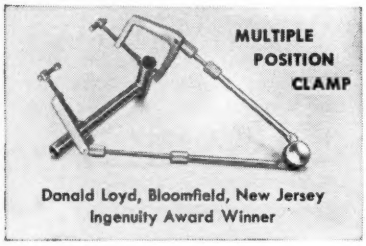
Are your students ready?

RINGS
Bob Sellick, Napa, California
Creative Design Award Winner

As in the past, Ford's Industrial Arts Awards Program is open to projects of *all* Industrial Arts students in grades 7 through 12.

● Ford engineers to evaluate projects

To stimulate the entry of student projects of outstanding creative design and ingenuity, the 1955 Program includes the active participation of Ford automotive engineers. These engineers plan to review and laboratory-test projects in each category worthy of further professional interest.



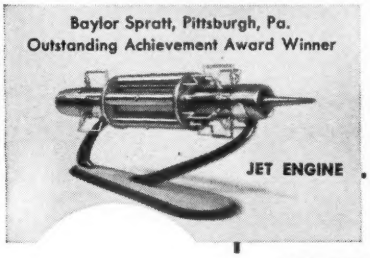
MULTIPLE POSITION CLAMP
Donald Loyd, Bloomfield, New Jersey
Ingenuity Award Winner

As an added incentive to your students with such projects, sixteen special awards will be made. There will be five awards for projects showing the most ingenuity . . . eleven awards for projects with exceptional creative design.

PORTABLE BAR B-Q
Vincent Antista, Long Beach, Calif.
Outstanding Achievement Award Winner

● Student winners to share $50,000 in awards

Prizes for winning students of Ford's '55 IAA Program will amount to $50,000 with individual prizes of as much as $200. In addition, hundreds of these prize-winning entries will be exhibited to the public in selected areas around the country, and in the Ford Rotunda in Dearborn—showplace of the automotive world.



Baylor Spratt, Pittsburgh, Pa.
Outstanding Achievement Award Winner
JET ENGINE

● Winning teacher-student teams to be Ford's guests in Detroit

Winners of Outstanding Achievement Awards, with their Industrial Arts teachers, will be three-day guests of the Ford Motor Company in Detroit. A few of the memorable events will be a tour of the gigantic Rouge Plant, a tour of the Henry Ford Museum and Greenfield Village . . . seats at the Michigan-Michigan State Football game, October 1st. A banquet and presentation of the Awards at Dearborn Inn will highlight the festivities.

Send this coupon for free IAA rules booklet and entry blanks

DEPT. A

INDUSTRIAL ARTS AWARDS
FORD MOTOR COMPANY, 3000 Schaefer Road, Dearborn, Michigan

Please send me official IAA rules booklet and entry blanks today.

*Name*_____

*Address*_____

*City*_____ *Zone*___ *State*_____

Education
LC
1041
.A5
V.30
No.3

American Vocational Journal

OFFICIAL PUBLICATION OF THE
AMERICAN VOCATIONAL ASSOCIATION, INC.
Exclusive Coverage: VOCATIONAL AND INDUSTRIAL ARTS EDUCATION

VOLUME 30 NUMBER 3

March, 1955

EDITOR-IN-CHIEF

M. D. Mobley
Executive Secretary
American Vocational Association, Inc.
1010 Vermont Ave., N.W.
Washington, D. C.

MANAGING EDITOR

Dorothy Robinson Davis
American Vocational Association, Inc.

EDITORIAL ASSISTANT

Nancy Hall Kane
American Vocational Association, Inc.

EDITORIAL BOARD

Agriculture—George P. Deyoe
University of Illinois
Urbana, Illinois

Business—A. L. Walker
State Board of Education
Richmond 16, Virginia

Distributive—William B. Logan
Ohio State University
Columbus, Ohio

Guidance—Guy O. Tollerud
State Department of Education
St. Paul, Minnesota

Home Economics—Bernice McCullar
State Department of Education
Atlanta, Georgia

Industrial Arts—William R. Mason
Board of Education
Cleveland, Ohio

Trade & Industrial—Russell K. Britton
Board of Education
Denver, Colorado

The American Vocational Journal is published monthly, September to May, inclusive, by the American Vocational Association, Inc. Entered as second class matter at the Post Office at Washington, D. C., under Act of March 3, 1879. Contents are copyrighted by the American Vocational Association, Inc. All members of the American Vocational Association, Inc., receive the Journal; 25 per cent or more of membership dues reserved for Journal. Membership applications should be submitted through state vocational association secretaries. Orders for subscriptions for libraries and nonmembers at $3.00 a year should be sent to AVA headquarters, 1010 Vermont Ave., N. W.

Special Features

GUEST EDITORIAL 4
THE JOURNAL SALUTES NORTH DAKOTA 5

From the Field

AGRICULTURAL EDUCATION
MINIMUM FACILITIES FOR THE VOCATIONAL AGRICULTURE DEPARTMENT ..... *Willard H. Wolf* 22
BUSINESS EDUCATION
SEVEN STEPS TO SUCCESS ..... *John A. Beaumont* 24
DISTRIBUTIVE EDUCATION
FIELD ACTIVITY FOR DECA, TEXAS STYLE 26
HOME ECONOMICS
GOOD GUIDANCE IS THE HEART OF THE HOMEMAKING PROGRAM ..... *Vera G. Ricci and Charlotte Lebus* 12
INDUSTRIAL ARTS
A WORKING KNOWLEDGE OF DRAFTING ..... *Donald E. Hepler* 18
TRADE AND INDUSTRIAL
SO YOU'RE BUILDING A SCHOOL ..... *George Morgenroth* 16
VOCATIONAL GUIDANCE
DON'T LET THEM GO WITHOUT GUIDANCE ..... *Ruth L. Coe and Richard Whinfield* 23

From Your Association

IAPPC CABINET REPORT ..... *Chris H. Groneman* 14
"GO THAT SECOND MILE . . . " ..... *LeRoy Pennington* 15
AVA PROGRAM OF WORK, 1955 27

Regular Features

FROM AVA HEADQUARTERS ..... *Dr. M. D. Mobley* 3
FROM THE OFFICE OF EDUCATION 28
ASSOCIATION NEWS AND PERSONALS 29
AROUND THE NATION WITH VOCATIONAL EDUCATION 31
BOOKS AND BULLETINS 32

This month's cover, a montage of North Dakota scenes, gives emphasis to the nature of the "flickertail" state. Read all about vocational education and its concrete contributions to agriculture, industry, business and family living in North Dakota, pages 4-11.

EDUCATIONAL PRESS ASSOCIATION OF AMERICA

Here's why no other tractor works ground like a *NEW*

McCORMICK® FARMALL® TRACTOR

with *Fast-Hitch*

NEW FARMALL 200 . . . the bonus buy in features, pull-power and job range

The new Farmall 200's power-weight ratio and big-diameter tires provide traction to outwork other tractors with up to 20 per cent more rated engine hp! The 200 gives you an unmatched selection of cost-cutting McCormick equipment. Fast-Hitch saves valuable hook-up and transport time. Only *Touch-Control* with *Fast-Hitch* gives you absolute implement control. Deep disk 24 acres daily with the 200's Fast-Hitch tandem disk harrow!

NEW FARMALL CUB® gives you every big-tractor feature

The new Farmall Cub gives you the *automatic hitching, hydraulic Touch-Control, handling ease* and *profit-making performance of* its work-saving bigger brothers—even if you farm only a few acres. The Fast-Hitch plow, working seven inches deep, proves it. And the Cub plus its Fast-Hitch, pull-type and mounted McCormick equipment gives you the lowest cost, full-featured outfit built. The down payment is Cub-sized, too!

NEW FARMALL 100 does your tillage the easy way

No other similar-sized tractor gives you new Farmall 100 efficiency features. Exclusive new Farmall Fast-Hitch. Exclusive Touch-Control with unequalled *use-range*. Exclusive Culti-Vision for full-cut, non-skip, hoe-close accuracy. Exclusive Farmall economy. The wide range of McCormick equipment, like the multi-purpose Fast-Hitch tool bar pictured, can reduce your investment while improving work quality.

Test drive the new Farmall that fits your farm—prove it leads all others in performance and dollar value. Just back . . . click . . . and go . . . with Fast-Hitch. Try Touch-Control—the greatest hydraulic system ever developed. See your IH dealer for a demonstration now.

INTERNATIONAL HARVESTER

International Harvester products pay for themselves in use—McCormick Farm Equipment and Farmall Tractors . . . Motor Trucks . . . Crawler Tractors and Power Units . . . Refrigerators and Freezers—General Office, Chicago 1, Illinois.

Write for FREE Catalog

International Harvester Company
P.O. Box 7333, Dept. AVJ-3, Chicago 80, Ill.

Tell me more about the far advanced features that make the new Farmalls leaders in every power class. I'm interested in:

☐ Farmall Cub ☐ Farmall 100 ☐ Farmall 200
☐ Farmall 300 ☐ Farmall 400

Name_____ ☐ Student

Address_____

Post Office_____ State_____

I farm_____ acres. Principal crops_____

My IH dealer is_____

FROM AVA HEADQUARTERS

THIS MONTH WE SALUTE NORTH DAKOTA. The people of this state are justly proud of the great economic and social progress that has been made in recent years. They realize that much of the progress has been due to the efforts and accomplishments of vocational and industrial arts education. We are glad to bring this report of a sound, worthwhile program of vocational and industrial arts education to JOURNAL readers throughout the nation. You will find it interesting reading. We commend the officials and vocational and industrial arts educators in North Dakota for their devotion to an educational program that means so much to so many.

Vocational Appropriations for 1956. Hearings before the House Subcommittee on appropriations for the Departments of Labor and Health, Education and Welfare were concluded on February 28. Only federal officials were heard as witnesses. Not even members of Congress were permitted to testify in person. Statements were accepted and will be printed in the Report of Hearings. AVA presented a statement showing need for further development of vocational education and requesting Congress to appropriate the full $29,300,000 authorized and to eliminate the restrictive language dealing with distributive education.

Hearings will begin soon before the Senate Subcommittee. Page 31 of this issue of the JOURNAL carries a complete list of the members of the House and Senate Subcommittees who handle appropriations for vocational education.

It is our hope that Congress will see fit to increase the appropriation for vocational education and to eliminate the restrictive language limiting the appropriation for distributive education.

Practical Nurse Bill. As predicted in the last 2 issues of the JOURNAL, bills have been introduced in both the House and Senate which contain provisions authorizing appropriations for practical nurse training to be administered through vocational authorities at federal, state, and local levels.

One bill (S. 929) which deals exclusively with *Practical Nurse and Auxiliary Hospital Personnel Training* was introduced by Senator Lister Hill (D) Ala., for himself and Senators Murray (D) Mont., Neely (D) W. Va., Lehman (D) N. Y., and McNamara (D) Mich.

Those of you who are interested should request a copy of this bill—by number—from one of your Senators. The measure authorizes *an appropriation of $5,000,000 each year* (beginning with fiscal 1956) for Practical Nurse and Auxiliary Hospital Personnel Training on a permanent authorization basis. Vocational educators will like S. 929 because of this feature.

Another measure – proposed by the administration and introduced by Representative Priest (D) Tenn., in the House and in the Senate by Senator Smith (R) N. J., for himself and Senators Ives (R) N. Y., Purtell (R) Conn., Bender (R) Ohio, Allott (R) Colo., Thye (R.) Minn., Bush (R) Pa., Saltonstall (R) Mass., Case (R) N.J., Duff (R) Pa., and Watkins (R) Utah—is included as Title III of H.R. 3458 and S. 886. These are companion bills and deal with the total health legislative program recommended by the President. They authorize appropriations—(on a temporary basis)—of $2,000,000 for the first fiscal year ending June 30, 1956; $3,000,000 for the second year; and $4,000,000 for each of the next 3 fiscal years; and no appropriation thereafter: these amounts to be made available "to extend and improve vocational education in the field of practical nursing."

No hearings have as yet been scheduled on these bills.

School House Construction. Educators in general were not pleased with the President's recommendations to Congress on this important matter. Members of several influential educational groups testified that the program proposed "too little money and too much control."

Dr. William G. Carr, Executive Secretary, NEA, in testifying before the Senate Labor and Welfare Committee on the administration bill stated, "I hope the bill can be substantially modified to provide some genuine federal assistance to states and localities instead of token assistance. Unless it is so modified, there is little or no reason why we should support it."

We are quite hopeful that Congress will pass a school house construction measure that will help materially existing class room shortages by providing a substantial amount of funds to be made available as grants-in-aid to states. AVA, as authorized by the House of Delegates at the San Francisco Convention, continues its support for such a measure.

Surplus Property Bill (H.R. 3322 and S. 1002). These companion bills provide for a donation program of surplus government property to educational and health institutions and agencies. The AVA is giving full support to this measure, and we are quite hopeful that it will be approved at an early date by the National Congress.

White House Conference on Education. A total of 1,400 persons will be designated by the states and territories to attend the White House Conference. Each state has been given a quota, based on population. The minimum allotment is 10, and New York State's allotment of 123 is the largest.

According to WHCE Director Clint Pace, more than 90 per cent of the states and territories scheduled to participate have taken some definite action in planning local conferences on educational problems. Vocational leaders should take appropriate steps to make sure that vocational and industrial arts education programs have due consideration in all state conferences.

AVA Program of Work. AVA members are urged to read carefully the 1955 Program of Work of your association (see page 27) and to work together for its accomplishment.

M. D. Mobley

Executive Secretary
American Vocational Association, Inc.

American Vocational Association, Inc.

The American Vocational Association advances American education by developing economic competence of youths and adults. The Association promotes the professional interests of persons engaged in vocational and industrial arts education. It encourages full time and part time programs in these fields; agriculture, business, distributive, home economics, industrial arts, trade and industrial, rehabilitation, and guidance.

OFFICERS

President—Cecil E. Stanley
State Department of Education
Lincoln, Nebraska

Past President—Mark Nichols
State Dept. of Public Instruction
Salt Lake City, Utah

Treasurer—Charles W. Sylvester
6819 Blenheim Road
Baltimore, Maryland

Executive Secretary—M. D. Mobley
American Vocational Association, Inc.
1010 Vermont Ave., N.W.
Washington 5, D. C.

VICE PRESIDENTS

Agriculture—R. E. Bass
State Department of Education
Richmond, Virginia

Business—Arthur L. Walker
State Department of Education
Richmond, Virginia

Distributive—Roy Fairbrother
State Department of Vocational and Adult Education
Madison, Wisconsin

Home Economics—Louise Keller
State Department of Education
Des Moines, Iowa

Industrial Arts—Shriver L. Coover
Pennsylvania State College
California, Pennsylvania

Trade & Industrial—Robert Reese
Ohio State University
Columbus, Ohio

ADVERTISING REPRESENTATIVES

Prendergast & Minahan
168 N. Michigan Ave.,
Chicago 1, Ill.

The Sidney R. Shlak Company
1913 Wood St.,
Philadelphia 3, Pa.

Indexes of the American Vocational Journal are published annually in the December issue. This material is also listed in the *Education Index*.

GUEST *Editorial*

By

Norman Brunsdale
Governor
State of North Dakota

NORTH DAKOTA IS GREAT in area, comparatively small in population, of vast service to the nation and to the world by reason of the productivity of its soil, and, of late years, by reason of production of oil and lignite. Oil, discovered here in 1951, is yielding heavily, making necessary new refineries and distribution processes. Our 600 billion tons of lignite coal are now being mined and processed in increasing quantities.

The Garrison Dam is the greatest unit in a new flood control, water, power, reclamation and soil conservation program, involving the Missouri basin and extending to eastern river systems. In addition to huge increase in electric power, the irrigation system will add 1,000,000 acres of highly productive land.

Justly proud of our state, we know that we are at the beginning of a period of notable expansion in agriculture, industry and population. We are also proud of a short victorious history. Many people now living remember when we came to Statehood in 1889. A few people now living remember the very beginning of our active history—for in the early 70's there were only fragments of white settlement here. Agriculture didn't begin in real earnest until the extension of the railroads in the decades between 1870 and 1890.

Our whole economy has been and will continue to be built around agriculture. In 1953, our state, comparatively low in population, ranked first among the states of our nation in production of hard spring wheat, durum wheat, flax and rye. Other crops are being grown in rapidly increasing quantities.

With regard to our main industry, farming can be said to be a lifelong process of vocational education. So can homemaking and the businesses and trades that are necessary handmaids to effective development of agriculture.

Since this natural process of education must be sustained and stimulated by knowledge of scientific methods and by effective training of our youth for their great task, we have established systems of formal vocational education and we support them to the full extent of our powers. Agriculture, homemaking, trades and industries, business and distributive education, and guidance services need to work as a unit, and we praise their personnel for so working.

Our vocational education has kept pace with changing conditions and is to a large degree responsible for the progress of all functions of our state economy.

The agricultural education service promotes programs of practical education for farm boys, and adult farmers, on a "doing" level. The Future Farmers of America organization, a definite part of the vocational agricultural system, has been tremendously successful in bringing out hidden abilities in our farm boys. Its force for good is felt in every rural community which has a vo-ag department.

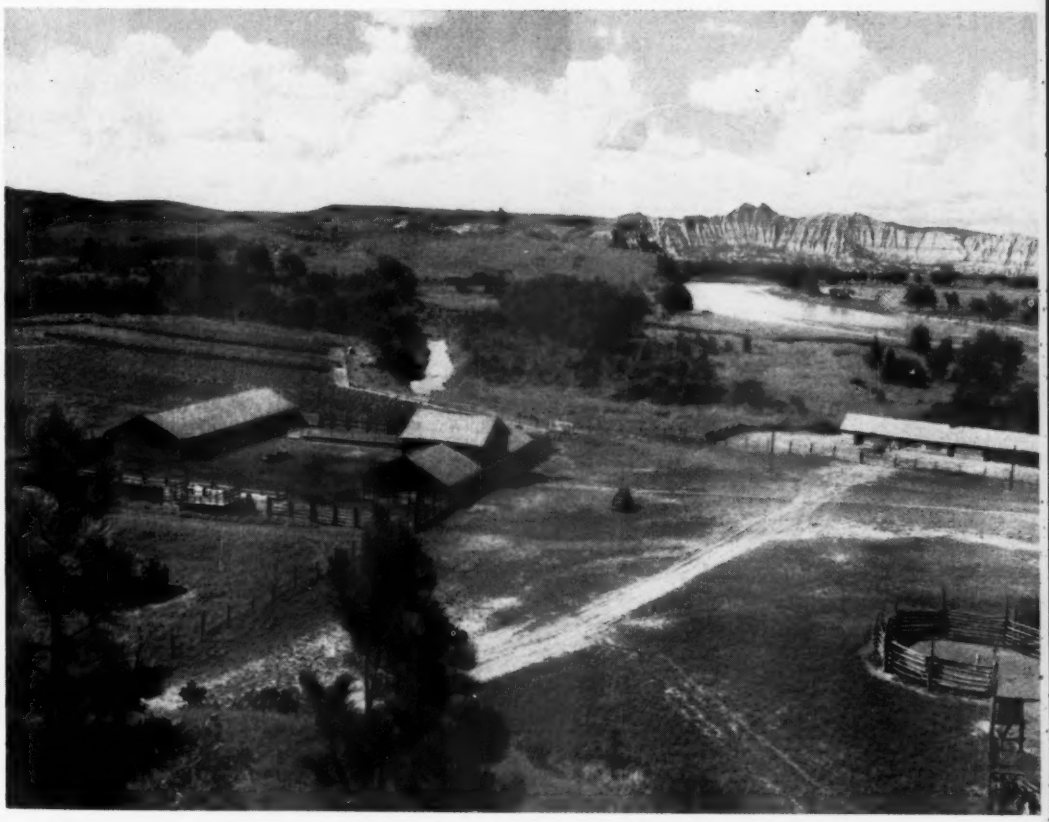
The vocational program in homemaking is developed around problems experienced by family members of all ages in maintaining happy home life. Homemaking education in North Dakota has as its goal helping girls and boys, men and women"learn to live better today that our families may be better tomorrow."

Our trades and industrial service is best known for its development of trades and industrial education at the State School of Science. The North Dakota plan, providing for a centralized state trade school, has become a model for trades education in agricultural states. Every city, town, and farm community in our state is now being served by electricians, auto-mechanics, radio experts, draftsmen and other skilled workers trained at the State School of Science.

Farming is a business in itself and many other business interests are necessarily enlisted in serving it; hence, the growth and prosperity of our cities and towns. We have recently expanded our vocational program by the addition of business and distributive education and by our guidance service. We want their supervisors and all engaged in this work to know that the Governor and many others are keenly aware of their devoted work and its excellent results.

The cover of this magazine carries the slogan, *The Journal Salutes North Dakota*. We who know the value of its work conclude by saying, *The Governor Salutes Vocational Education in North Dakota.*

for record achievements and a promising future—



Ranch farming in North Dakota Bad Lands

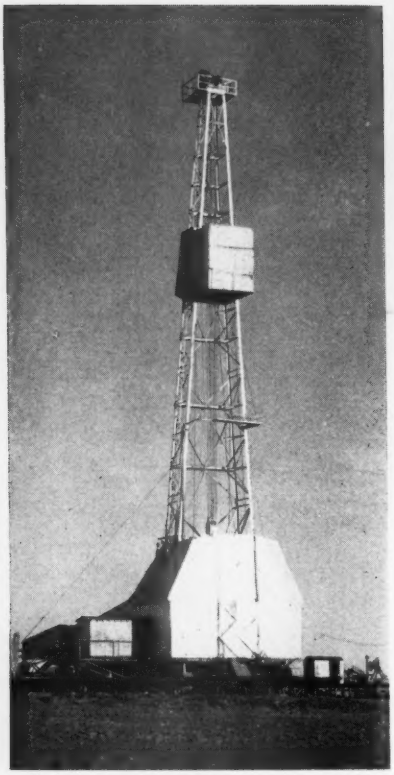
the journal salutes *North Dakota*

GOVERNOR NORMAN BRUNSDALE in the guest editorial strikes the keynote for the JOURNAL'S salute to North Dakota. As a state, North Dakota is 66 years old. With over 90 per cent of its land arable and devoted to diversified agriculture, it is not only self-sustaining as to its own relatively small population, but it has rendered vast service to our nation and to the world.

At this time there are strong beginnings as to industrial development. The new oil industry is well established; there are at the moment significant experiments as to discovery of uranium in our southwest; there are unlimited supplies of lignite, being now mined and processed in substantial quantities and with vast potentialities as a state and national resource; there are significant developments in clay and pottery; there is great extension in flood control, electric power, and irrigation; and there is strong realization of the need of vocational education.

To our vocational education system, this section is especially devoted. In the following pages the work of our 5 services will be described and pictured. Considering that small population means restriction of limits of tax money, North Dakota can well be proud of the way that it has supported the state services for vocational education. An agricultural population, according to Thomas Jefferson, is best suited toward the working of effective democracy "where intelligent and responsible citizens are in majority." The citizenry of this state is well aware of the importance of vocational education toward the development of its agriculture and its industries. The state has room for vast increases in population and it believes that scientific methods and practical efficiencies promoted through vocational education will invite increase in population and greatly increase an already vast productivity.

North Dakota looks back with just pride in past achievement; it looks forward with high confidence and full courage to a great future. As of now the state has a right to apply to itself the famous war-time slogan of Winston Churchill: "There has never been a time when so few have done so much for so many."



Oil is a new, rapidly growing industrial area in North Dakota's economy.

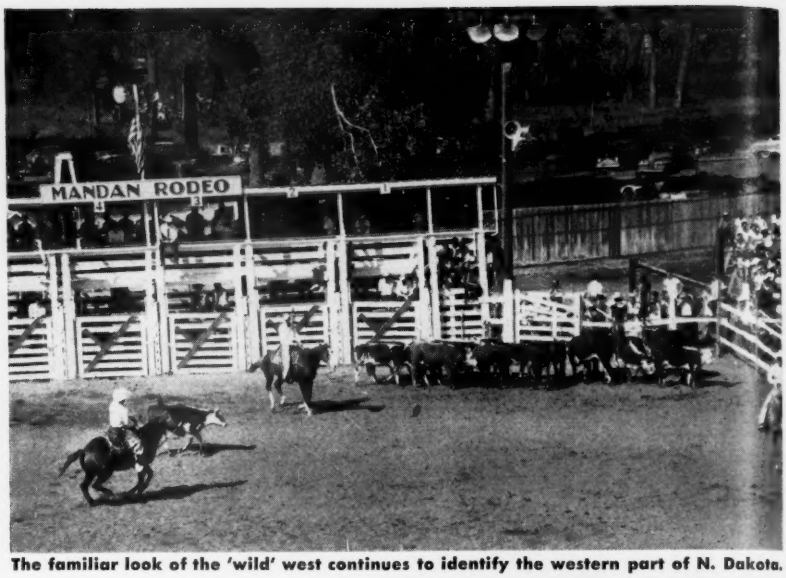
Agricultural Education

Agriculture is the backbone of North Dakota's economic life. The 65,354 farms in the state produce an annual crop valued at more than 500 million dollars. Here, where the population is seventy per cent rural and where there are but few industries, vocational agriculture has a most important job to perform.

As early as 1911 state leaders, recognizing the need for agricultural education, passed legislation for the establishment of state agricultural high schools. These now have given way to departments of vocational agriculture in high schools, except for two county agricultural schools.

Fifty schools in the state offer vocational agriculture and employ 56 instructors. More than 2,000 farm boys, plus a similar number of young and adult farmers, are enrolled. Since 1936 the state legislature has provided funds to supplement federal aid for vocational agriculture, making it possible for approved schools to carry out effective programs.

Right: officers of the North Dakota Vo-Ag Association in committee session.

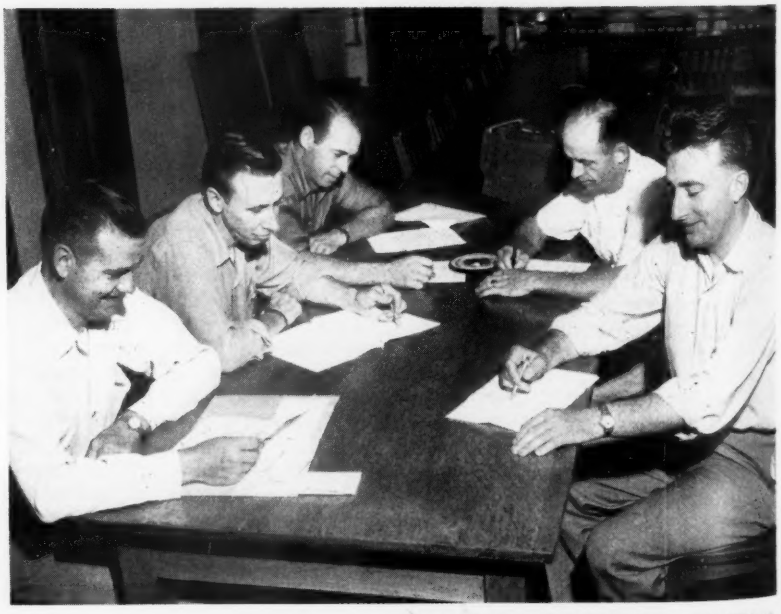


The familiar look of the 'wild' west continues to identify the western part of N. Dakota.

Although much progress has been made toward establishing larger administrative units with a sufficient enrollment to provide a well-balanced educational program, much remains to be done. Of the 379 public high schools in the state, 264 have an enrollment of less than 70 students. As larger community schools are established it is reasonable to expect that there will be from 80 to 95 strong vocational agriculture departments in the state, each employing one or more qualified instructors and each having facilities especially designed to serve adequately the farm people in the area.

During the past several years communities have done an excellent job of building or remodeling facilities

Profit and loss is often determined by the farmer's ability to operate machines.



for vocational agriculture departments. Only a few departments still are housed in the school basement.

Vocational agriculture is a four-year elective subject tailored to fit local farming conditions. Classroom instruction, field trips, farm mechanics and the FFA are geared toward helping the individual become established successfully in farming.

North Dakota farms are highly mechanized. The average farm consists of about 640 acres, and farms of 2,000 acres are not uncommon. Modern machinery is essential to North Dakota's agriculture. To teach farm boys how to care for this machinery, about two-fifths of the vocational agricultural instruction is given over to farm mechanics, taught in sizable, well-equipped shops. Planning and equipping the home shop is one of the student's major improvement projects.

Schools are recognizing the need for and importance of providing instruction for young farmers and adult farmers. This type of instruction is being expanded by the use of special instructors in schools whose regular instructors have a full-time load.

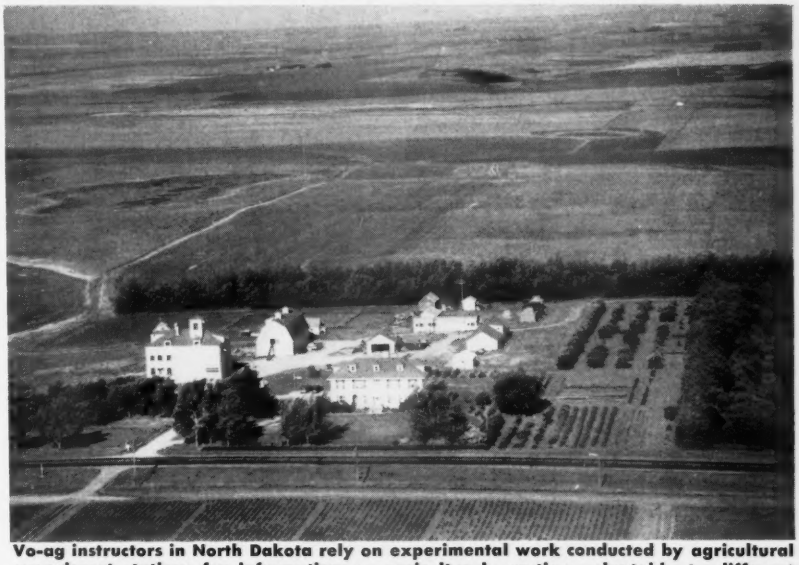
During World War II, 173 North Dakota schools conducted food production war training courses. More than 25,000 farm people enrolled for practical instruction in the repair and maintenance of tractors and farm machinery, welding, carpentry, farm electricity and production courses.

Following the close of the war 122 schools employed 192 instructors to provide on-the-farm training for farm veterans. The quality of this instruction has been kept high by employing only qualified vocational agriculture instructors or college graduates of agriculture with a satisfactory farm background. To meet the emergency demand for instructors North Dakota turned to Canada, its neighbor to the north, for approximately 50 instructors.

The FFA is an integral part of the vocational agricultural program in North Dakota. Every department has an active FFA chapter carrying out a challenging program of work. Organized in 1929, the North Dakota FFA Association now has more than 2,000 active members and hundreds of associate members throughout the state. The Association celebrated its silver anniversary during the state convention in June at which time past achievements were reviewed and new goals established.

FFA chapters, always striving to make their members' homes and communities better places in which to live and work, have made an outstanding record in many activities, including farm safety. Each year since 1950 North Dakota chapters have won either the regional or national FFA farm award.

Unlike most other states, in North Dakota state supervision and teacher training are centered at the North Dakota Agricultural College. The chairman of the agricultural education department serves as both professor and state supervisor of agricultural education. The department staff is responsible for both phases of the work and also for general supervision of the institutional-on-farm training program for veterans.



Vo-ag instructors in North Dakota rely on experimental work conducted by agricultural experiment stations for information on agricultural practices adaptable to different areas of the state. The central experiment station is in Fargo. Six branches are scattered throughout the state. Pictured is the North Central Branch, near Minot.

Vocational Homemaking

In the 36 years vocational homemaking education has been in progress in North Dakota, the program has certainly grown in both quantity and quality. In 1922 there were 12 reimbursed departments and no adult homemaking. In 1953 there were 95 reimbursed day school departments with 4383 girls and 264 boys enrolled, while 1088 women and 124 men were enrolled in the adult classes. In all, a total of 5859 persons were served.

As an index to the quality of the homemaking program, a few of the state-wide activities can be cited. An annual State Conference for Homemaking Teachers is held each August at which the major problems suggested by the high school homemaking teachers are considered. This year emphasis was given to: the teaching of foods on a meal basis in a sixty minute period, integrating the Future Homemakers of America program with the homemaking program, the most effective ways of directing the home experience program, how to include boys in

A former state FHA officer, currently a student at North Dakota Agricultural College, examines student-made pottery.

A home economics student displays her arrangements for teacher inspection.

Homemaking education and what techniques are most successful in organizing an advisory council for a local homemaking program.

To make sure that all viewpoints are considered in "blueprinting" the next year's state homemaking program, a State Planning Committee meets in June. The personnel of this elected committee from the geographic areas of the state consists of 8 experienced and one beginning teacher, one teacher-trainer, and two state supervisors. Three school administrators participated in the evening session and next year a few homemakers will be invited to attend and give their suggestions. It is felt that these activities show that cooperative planning and the use of democratic procedures hold high priority with all those participating in the homemaking program.

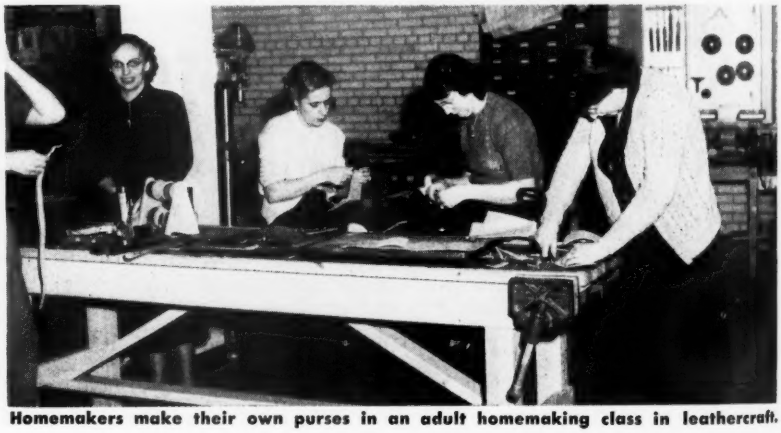
In 1951 the *North Dakota Curriculum Guide in Homemaking Education* was published and with the reference book and film lists brought up-to-date each August, it serves as a constant guide to the many inexperienced teachers coming into the high schools each September. The *Curriculum Guide* was written for teachers, by teachers, with the help of teacher-trainers, and supervisors, and was based on state-wide surveys of pupil interests and of the homemaking practices and facilities in the homes of both rural and urban families. The teacher in each local situation is encouraged to make further adaptations that may better serve the girls and boys and their families in her community.

In all the units of the Homemaking Curriculum, the teaching of good personal relationships is integrated with the practical skills as a means of guiding girls and boys toward wholesome family living. Other persistent factors included in each unit are health, safety, management, and consumer buying. Keyed to the complicated job of homemaking today, students are given training in many phases of family living, such as: studying and guiding young children; selecting, caring for, and constructing clothing; shopping for, preparing, and serving meals; caring for the sick in the home; making the home attractive; and developing interest in community activities.

Teacher training programs for seniors in home economics are carried on in ten off-campus centers each year. This policy has been followed since 1929, when the first off-campus center in the country was established at Casselton, North Dakota, under the supervision of the Home Economics Teacher Education Department at the North Dakota Agricultural College. An effort is made to use only vocational homemaking departments as student teaching centers where a strong and well-trained teacher is employed and where a functioning school lunch program and a well organized Future Homemakers of America chapter exists, as well as work with adults.

The North Dakota Future Homemakers Association of America is an integral part of the homemaking program and is providing training for leadership and participation in community activities for better family life. There are 88 chapters of Future Homemakers of America with 2877 members in about 90 per cent of the high schools offering home economics. Their state projects are: giving help to physically handicapped children, and the promotion of health campaigns, as well as contributing to a leadership training fund for the chapter officers. Their emphasis on the national projects of "families together" and home safety is growing each year and is a source of real satisfaction to the homemaking teachers who are the chapter advisers in local high schools.

If homemaking education in North Dakota in the next three decades can match the progress which was made the past 36 years, family life on these prairies will surely be of high quality and be proof positive of the genuine benefits of vocational education.



Homemakers make their own purses in an adult homemaking class in leathercraft.

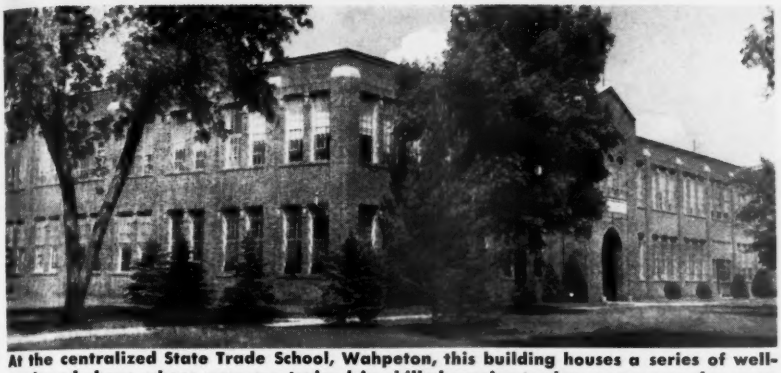
Industrial Arts

It is encouraging to note that in almost every instance where new buildings are being constructed, or where there is a building expansion program in North Dakota, provisions are made to serve students in the area of industrial arts.

Because many schools demanded assistance in planning an industrial arts program, as well as in planning for the necessary facilities, the State Department of Public Instruction organized a state committee consisting of enthusiastic secondary school instructors, along with heads of industrial arts departments in our colleges for the purpose of providing teachers with a state guide.

The committee published the first printed teachers guide for this area in 1953. This North Dakota industrial arts publication contains well developed information and guidance in such areas as philosophy, purpose, objectives, and content outline. It also provides a listing of desirable minimum equipment and suggested physical layouts.

Gradually we will expand this important phase of our educational program by providing for it in more of our schools.



At the centralized State Trade School, Wahpeton, this building houses a series of well-equipped shops where men are trained in skilled service trades common to the area.

Trade and Industrial Education

Men and women from every one of the 53 counties in North Dakota come to the centralized state trade school at Wahpeton each year for specific training in skilled trades common to the area. Students in attendance this past year averaged 20.8 years of age.

This school, known as the North Dakota State School of Science, is located at the head of the Red River Valley in a rich agricultural area. Most of the courses offered might be classified as service trades. Most popular courses at the present time are electrical, radio and TV, automobile mechanics, automobile body repair and refinishing, general mechanics and tractor and diesel, printing and linotype, welding, sheet metal, heating and ventilating, and drafting and estimating for the construction trades.

The greater percentage of the graduates in the 2 year trade courses return to employment in the State. In practically every town in North Dakota are former students at work as repairmen, maintenance men, mechanics, printers, electricians, radio and TV servicemen and the like. In a recent check of the licensed journeymen and master electricians in North Dakota 20 per cent are former students of the centralized state trade school.

This school had its beginning under its present system of operation some 33 years ago as a result of an idea that was formulated in the mind of Earle J. Babcock, then Dean of Engineering at the State University. He recommended a School of Applied Science where there would also be an opportunity for youth to pursue practical business courses or secure two years of college credit. The Applied Science division of his recommendation became the centralized state trade school with the slogan, "Where Students Learn By Doing." So, today, 33 years later, this institution has become one of the most popular schools in the area and has gained nation-wide recognition for the service it renders in meeting education needs of the area; and it is essentially following exactly the recommendations of Dean Babcock. From its meager beginning in 1920, it has grown to the point where the value of buildings and equipment is in excess of 2½ millions of dollars and it is located on 47 acres of land on the outskirts of the city of Wahpeton.

Sheet metal students acquire experience in sheet metal work as well as in the design and installation of heating and ventilation systems. (Wahpeton, N. D.).

At the present time, this institution can accommodate 800 students, and advance reservations fill most of the courses to capacity long before courses open each fall.

The newest course organized in the Trade School serves as a good illustration of the number of "customers" available when such a course is planned on a practical basis to meet the needs of individuals. The course, General Mechanics, is followed by shop instruction on tractors and diesels.

Electricity has come to 90 per cent of the farms in the area—and the farms are large ones—folks talk sections and not acres.It would be quite a surprise to many people to see the well-equipped repair and maintenance shops on these farms. The coming of electric power together with the mechanization that has taken place in recent years has completely changed the mode of living and increased the need for mechanics. The young man on the farm today must be a good mechanic—a versatile mechanic. His needs in the field of mechanics are much greater than that of his uncle who was rated as a competent garage mechanic some few years ago. Our newest course in General Mechanics was established to give basic training for young men who will serve primarily as mechanics on these mechanized farms. Our shop space was designed to accommodate around 60 to 65 men, and the course opens on November 1 of each year when farm work is about completed. This year we had 187 advance reservations by August 15 for General Mechanics and Tractor and Diesel, a course that did not open until November 1. Because of the popularity of the course and the demand, a substantial appropriation was requested from the State Legislature for a new building for this one type of training.

Through agreement with the State Board of Electricians, graduates of an 18-month electrical trade program earn 18 months credit toward the 3 years of experience required before taking state examinations for their journeymen and master licenses.

Public service training courses, part-time courses, and evening school classes are promoted throughout the entire State. These include a safety and job training program for rural electric cooperatives, schools for janitors and custodians, teacher training sessions for fire chiefs, regional fire schools, nursing aide projects, electrical inspector schools, bricklaying courses, and plumbing courses.

The newest venture in the field of nursing has been the organization of a project to train nurses' aides for hospitals and old people's homes in the State of North Dakota. The project is under the supervision of the State Board of Nursing and the State Hospital Association. A teacher trainer has been appointed and workshops have been conducted throughout the State to train instructors for each hospital and old people's home.

North Dakota's newfound oil industry which is being rapidly developed here in the State is presenting an opportunity to establish a training program that will assist in providing trained workers for the industry. Plans are being formulated to employ additional personnel to promote and supervise the above and additional training programs within the State.

Business and Distributive

The products of the farm and factory depend upon distribution. The training of workers in the distributive and office occupations is essential for the further development of our free competitive enterprise system of distribution.

Of the non-agricultural employment in North Dakota, over 1 out of every 3 employed persons is in a retail, wholesale or service business. It is a state offering opportunity to many small business enterprises.

There are two phases of business and distributive education: the high school or part-time cooperative training and adult classes for people already employed.

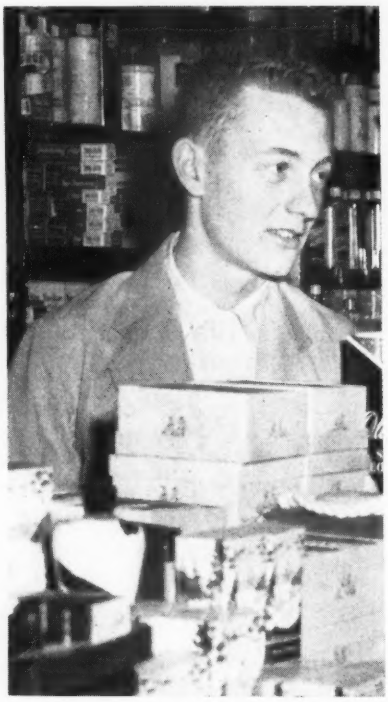
Work experience education is becoming an important part of the high school curriculum. It is an opportunity to make use of "community facilities." The school and community work together to meet the needs of youth.

Since 1938, more and more North Dakota high schools have been offering part-time cooperative training in distributive and office occupations.

Students in business training programs must study latest trends and equipment in the "laboratories" of local offices.

New units of study in marketing, retailing, salesmanship and advertising are offered in the high schools. The local stores serve as a laboratory where the student receives practical work experience. Schools that have been offering courses in typewriting, bookkeeping, shorthand, and secretarial practices are also providing work experience in local offices.

Over 60 per cent of the high schools in cities of over 2000 population offer part-time cooperative training. There are 5 schools in cities under 2000 population that provide this valuable learning experience.



The boys and girls who seek careers in distribution have training facilities.

A good example of cooperation in adult education is the produce training schools that have been held in North Dakota. Through the coordination of the state supervisor, schools in four sections of the state have served retailers from 77 cities in North Dakota. Merchants have traveled over 200 miles to attend these schools.

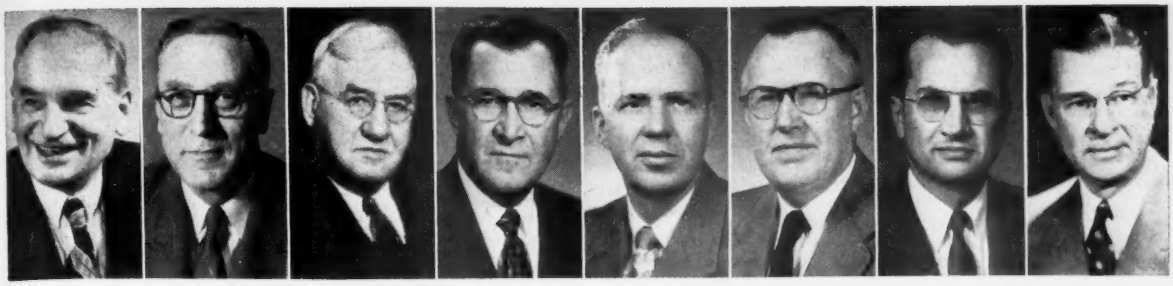
The program is further implemented through advisory committees, club activities and teacher education. Several North Dakota schools, including the State University, have courses in teacher education in this field.

Vocational Guidance

With the continued expansion and the use of educational opportunities in North Dakota have come the usual problems of gearing the educational efforts to the wide range of pupil differences and needs. This concern for the individual has led the education leaders of the state to encourage school personnel to individualize the experiences of the pupils as much as possible. From an action standpoint they have recognized that an organized program of pupil guidance services gives to the school program the procedures through which efforts can be made to maximize the development of the individual student.

The Guidance Services Division was established to provide the state-level leadership and activities necessary to help promote, develop, and improve pupil guidance services in the schools of North Dakota. In carrying out this function, the Division constantly emphasizes that: guidance services are an integral part of the total school program and are designed to serve all students rather than just the problem cases; an effective guidance program includes total staff and community efforts, specific planning, and appropriately trained guidance personnel; guidance services, like any other aspect of education, must be continually evaluated in terms of service to youth.

The overall attitude toward guidance services in the State can be well summed up in the words of a local school board member. "You know, guidance services lend sincerity to education and in doing so, keep the focus on the individual. That's important."



Above, l. to r.: Senator William Langer; Senator Milton R. Young; Congressman Usher L. Burdick; Congressman Otto Krueger; N. D. State Superintendent of Public Instruction M. F. Peterson; President Leonard T. Havig, N. D. Association of School Admin.; President George W. Starcher, University of North Dakota; and President Fred S. Hultz, N. D. Agric'l College. (See their statements below.)

Our country's greatest resource is her industrial might, developed through vocational training. Because our people have been taught to produce weapons, goods and services of superior quality and quantity, we have been able to maintain our freedom and enjoy a high standard of living. Promotion of vocational education is one form of promotion of the general welfare—a federal obligation. *William Langer,* United States Senator from North Dakota.

* * *

Vocational education in North Dakota is measured by increased efficiency of our farmers, homemakers, merchants, and tradesmen.

The federal appropriation for vocational education for 1954-55 was increased by $5,000,000. This increase is ample testimony as to the support this program has both in and out of Congress. As a member of the Senate Appropriations Committee, I have always fought for adequate appropriations for this important work and will continue to do so. A free, enlightened democracy, to which vocational education contributes greatly, is our strongest hope against the false and godless philosophy of Communism. *Milton R. Young,* United States Senator from North Dakota.

* * *

I was proud to be in the firing line for adequate funds for vocational education during the 83rd Congress. The original proposal to slash these funds was false economy of the worst sort. The field of education is one of the front lines of democracy in its fight against totalitarianism. Vocational education's program has proven itself over the years. It provides a constructive and positive answer to the career problems of our students. *Usher L. Burdick,* Member of Congress from North Dakota.

Science and research have brought new complexities to the matter of living in this modern age. To live happily, successfully, the individual needs more training, more education. So that our young folks of today can acquire the *why,* as well as the *how,* we should maintain and expand our field of vocational education. *Otto Krueger,* Member of Congress from North Dakota.

* * *

Even the child who is preparing for a profession finds it a profitable diversion to spend a part of his educational experience in the vocational field.

North Dakota is and always has been an agricultural state and I dare say will continue to be so for generations to come. Therefore, every youngster should have an opportunity, both in elementary grades and high school, to become acquainted with farming and ranching as much as is possible in school and school activities.

The objective or purpose of education is to train one for a living and for citizenship. We cannot mold good citizens by withholding from them things of special interest. Education is not only to make a living but to live, which really makes it imperative that our schools offer programs that will appeal, not only to the interest of all, but also to their needs. Vocational courses will better equip a school to meet these interests and needs. *M. F. Peterson,* Superintendent of Public Instruction, State of North Dakota.

This is what they say . . .

Top statesmen and educators in North Dakota set forth their reasons for believing in vocational education. Be sure to read these strong statements of real support!

Nearly everyone earns his living, so vocational training must be provided by schools, by jobs, or both. Jobs cannot provide all the necessary training, so schools must do it. Vocational education should be an integral part of the curriculum of schools. The secondary schools cannot overlook it because high school education is the terminal education for many. *Leonard T. Havig,* President, North Dakota Association of School Administrators.

* * *

Though all education is in the larger sense "vocational," our universities concern themselves mainly with an education for such professions as law, medicine, business, education, engineering and with the development of specialists in the sciences, the arts, and humanities as well as supplying the need for broad programs in liberal education. In comparatively recent times need for specialized education for farmers, merchants and artisans has been duly realized. Institutions like the School of Science at Wahpeton are filling a very important need. What our state has done along these lines is highly commendable. All types of education are learning to work together for the common good. A commonwealth, like a football squad, needs teamwork. *George W. Starcher,* President, University of North Dakota.

* * *

Vocational education is an essential part of an effective school program. Through practical vocational courses schools are meeting the challenge to prepare youth and adults for educational competency in agriculture, industry, business and homemaking. Vocational education has made a distinct contribution to North Dakota of which we all are proud. *Dr. Fred S. Hultz,* President, North Dakota Agricultural College.

Good Guidance is the Heart of the Homemaking Program

A panel of experts examines the role of the homemaking teacher. They agree on a concept:

Editor's Note: The National Association of Vocational Homemaking Teachers offered a program on *The Role of the Homemaking Teacher in the Guidance Program* at the 1954 AVA Convention. President Vera G. Ricci, Belvedere Junior High School, Los Angeles, Calif., served as Chairman. Presented here are highlights from the remarks of main speaker Dr. George A. Muench, Associate Professor of Psychology, San Jose (Calif.) State College, and panel members Agnes Barry, homemaking teacher, Edison High School, San Jose, Calif.; Carol Brown, Special Supervisor, California State Bureau of Homemaking Education; and Gladys Schmidt, homemaking teacher, Hartnell College, Salinas, Calif. Your reporters: Mrs. Ricci and Charlotte Lebus, Supervisor of Homemaking, Junior High Schools, Los Angeles, Calif.

DR. GEORGE A. MUENCH—

Good guidance is always found in good teaching.

There is an increasing need to accept the emotional problems of people as realistically as we accept their physical problems. Insecurity is a basic emotional problem. In pupils, it accounts for withdrawal, aggressiveness, and non-conformity.

In order to offer adequate help, the teacher first must be an adequate and effective personality. Parents and teachers alike must understand "acceptance of self" before the student can understand how to accept himself.

General education is the education of the total person and should result in the construction of self-security, self-acceptance, and harmony. It should also bring the acceptance of others, harmony and security with others.

The homemaking program has a unique opportunity to develop the successful personality of the individual in the home. The interpersonal relationships necessary for growing are part of the homemaking program.

The nature of the homemaking program, its activities, smaller classes, and close teacher-pupil relationships are conducive to feelings of security, comfort, happiness, creativeness, and thoughtfulness. Increased emphasis on how to grow is good. Group counseling, problem solving, the recognition of individual differences, and modified therapy teach boys and girls "how to grow." Good guidance is an integral part of the good homemaking program.

MRS. AGNES BARRY—

Homemaking teachers are usually known as friendly people and students not in their classes, as well as those who are, will come to them with questions.

The homemaking teacher should set an example of what a good home economist should be. As the key to good counseling the teacher herself must reflect a wholesome, understanding attitude for what she believes affects everything that she teaches. Homemaking teachers have long used

*"The Demonstration Way**

I would rather see a lesson
Than hear one any day
I'd rather you would walk with me
Than merely show the way.
The eye's a better teacher
and more willing than the ear
And counsel is confusing
But example's always clear.
The best of all the teachers
Are those who live their creeds
For to see good put in action
Is what everybody needs.
I can soon learn to do it
If you let me see it done
I can watch your hands in action,
Your tongue too fast may run.
And the counsel you are giving
May be very fine and true
But I'd rather get my lesson
By observing what you do."

Guidance, an important phase of the homemaking program, may be classified in 3 basic types: vocational, educational, and personal-social. Fundamental to these 3 areas are basic guidance techniques.

GLADYS SCHMIDT—

Homemaking teachers should be able to provide more and better counseling than other teachers since we have less students, informal situations, and more time (per period). Too, we probably know more about and have a closer relationship with each student.

If we accept our responsibility for guiding our students, we have 14

* Author unknown. From *Newsletter for South Dakota Homemaking Teachers*, February, 1954.

basic factors to consider at all times.

1. We must reflect a wholesome and understanding attitude.
2. We must like and have faith in people.
3. We must understand the language and the point of view of the student.
4. We must be patient.
5. We must understand ourselves with emotional maturity.
6. We must respect our students and believe in their ability.
7. We must accept the student as she is when she comes to us. (We must listen to her and understand her.)
8. We must make use of school records and counselors.
9. We must be on good terms with counselors.
10. We must hold all student-information in strict confidence.
11. We must offer pupil-centered, not teacher-centered, guidance.
12. We must refrain from expressions of shock, amazement, approval, disapproval, agreement, disagreement and offer no rewards, no punishments.
13. We must be consistent and firm in refusing to assume responsibility for diagnosing personal problems.
14. We must, when necessary, make referrals.

We can make an outstanding contribution to the guidance program if we exemplify a warm, accepting, understanding, and well adjusted attitude.

MRS. AGNES BARRY—

One good counseling technique is an easy one to remember—

"A wise old owl sat in an oak
The more he saw the less he spoke
The less he spoke the more he heard
Why can't we be like that wise old bird."

Club organizations offer experience opportunities for boys and girls to "learn through living." Mrs. Carol Brown, State Advisor for the California Future Homemakers and Young Homemakers will discuss the guidance program offered through these organizations.

MRS. CAROL BROWN—

Quite naturally I am interested in the ways through which the Future Homemakers program can help us, as homemaking teachers, to participate more successfully in the guidance of our students.

A well organized FHA chapter is not just another social club but a unique entrance to better home and family living.

As the chapter functions as an integral part of the program we find opportunities to meet our students more informally.

Through FHA work we are likely to meet our students for a longer period of time and thus, we become better acquainted.

Many Family Fun Nights, Mother and Father Dinners, and Daddy Date Nights give us an insight into family backgrounds.

In our degree program we work with a student as she attempts to look at herself objectively in order to find a way or ways in which she may improve herself as a member of her home, her school, her community and evaluate her own progress.

All of these factors give us background as well as opportunities for vocational, educational, social, and personal guidance.

The homemaking teacher should consider it her responsibility to participate in or plan career days, to collect materials on careers in home economics and to have this material available to her students. There should be a constant flow of material and information to the counselors.

MRS. AGNES BARRY—

The fine guidance program in FHA and school influences are well stated by a Japanese-American girl who has chosen elementary teaching as her goal and who has expressed her feeling in this matter—

"My parents did not approve of my planning to be a teacher but through encouragement given to me at school I have been able to convince them and myself that my future success lies within me and that my race is not a major handicap."

With students from many kinds of homes in our American schools there is need for teachers to understand cultural backgrounds, traditions and values of peoples of different creeds and nations.

What do the homemaking classes contribute to the well being of the non-academic, less-intelligent student? Is there a constructive rehabilitation program to help the boys and girls who may have had a brush with the law? As these students grow older they, too, will have the right as citizens to exercise the privilege of the vote, to establish homes and families.

It will give us, as homemaking teachers, a feeling of personal satisfaction if, in our hearts, we can agree with Elbert Hubbard, the noted educator who said:

"If I can supply you with a thought
You may remember or you may not
But if I can make you think a thought for yourself
I have indeed added to your stature."

The well adjusted senior in home management can be a shining example of the results achieved when good guidance is a basic, ever-present part of the homemaking program.

IAPPC CABINET REPORT

The Cabinet of the Industrial Arts Policy and Planning Committee, American Vocational Association, convened for an official meeting at AVA Washington headquarters Friday and Saturday, February 4 and 5, 1955.

In general, the group concerned itself with the selection of appropriate program topics for the industrial arts divisional meetings at the 1955 AVA convention to be held in Atlantic City, New Jersey, December 5-9. The general chairman who will coordinate programming for the entire industrial arts division is John Smith, New Jersey State Supervisor of Industrial Arts. Mr. Smith will be ably assisted in making his final arrangements by a number of prominent industrial arts leaders.

Program topics planned for the Atlantic City Convention include the impact of TV in industrial arts; project selection and design; tomorrow's teachers; and the place of drafting and planning in the industrial arts curriculm. Another feature of the program will be the ever-popular series of demonstrations involving new materials and processes pertaining to the teaching of industrial arts. All of the sessions this year will be designed around outstanding questions and problems paramount to successful teaching, curriculm construction and supervision.

It is contemplated that the TV session will include performances by some of the people who are already successful in the area of educational TV and who are also engaged in industrial arts teaching. The performers will be able to answer questions in regard to the selection, operation, and the mechanics involved in achieving outstanding TV acceptance.

The sessions pertaining to drafting and planning will be presented by people who are successful in various phases of industrial arts drafting and who have made a study of content, thereby being in a position to justify current trends and developments. Particular attention will be focused upon the content of drawing and drafting in the junior high school.

The "tomorrow's teachers" program will cover important topics such as recruitment, promotion of scholarships, industrial arts club activity development and public relations within elementary, secondary and teacher education programs.

The demonstrations will include presentation of new methods and techniques in fabrication. These industrial demonstrations will be applicable to educational adaption. It is hoped that the innovation of having demonstrations operating simultaneously in a large area will encourage teachers and students to study and explore these particular areas which are of major importance in the industrial arts teaching program.

The entire industrial arts program for the AVA Convention will be practical in its approach.

The Cabinet membership also reviewed the accomplishments of the various committees functioning within the industrial arts division of the AVA. They include those pertaining to nominations, resolutions, membership, research, editorial, student membership, and the Industrial Arts Policy and Planning Committee.

In particular, the Cabinet voted unanimously to offer special commendation to Dr. R. Lee Hornbake, Professor of Industrial Education, University of Maryland, for his distinguished service as Industrial Arts Editor for the AMERICAN VOCATIONAL JOURNAL, 1951-1954. William R. Mason, Supervisor of Industrial Arts, Cleveland, Ohio public schools, was also cited for his excellent leadership as Chairman of the Subcommittee that planned and produced the school shop planning series that appeared over a period of months in the JOURNAL. Mr. Mason's plans for a new series, (launched in the February, 1955 issue of the JOURNAL and designed as a series of instructional guides to be based on AVA's *A Guide to Improving Instruction in Industrial Arts*) were reported for discussion.

The splendid cooperation of Executive Secretary Dr. M. D. Mobley and Managing Editor Dorothy Davis was acknowledged. The excellent response to industrial arts articles in the JOURNAL was reported.

The meetings were concluded with other matters pertaining to student club memberships and the possibility of AVA awards for outstanding college seniors in industrial arts.

In attendance at the meeting were Dr. Shriver L. Coover, AVA Vice President for Industrial Arts, IAPPC Chairman and Head, Industrial Arts, State Teachers College, California, Pa.; Dr. G. Harold Silvius, Vice President, Industrial Arts Division, and Head, Industrial Education Department, Wayne University, Detroit, Mich.; Verne L. Pickens, Secretary, Industrial Arts Division, and Chairman of Practical Arts and Vocational Education, Kansas City, Mo. Public Schools; William R. Mason, Industrial Arts Editor for the JOURNAL, and Supervisor of Industrial Arts, Cleveland, Ohio Public Schools; Dr. Ivan Hostetler, Head, Industrial Arts, North Carolina State College, Raleigh, N. C.; Lowell A. Burkett, AVA Assistant Executive Secretary;; and Dr. Chris H. Groneman, Head, Industrial Education, The Agricultural and Mechanical College of Texas, College Station, Texas.

IAPPC Cabinet in AVA Washington office, l. to r.: Chris H. Groneman, Ivan Hostetler, Verne Pickens, Shriver L. Coover, Lowell A. Burkett, William R. Mason, G. Harold Silvius.

"Go that second mile"

says banner-winning Arkansas in a new how-to story on membership promotion

THE ARKANSAS VOCATIONAL ASSOCIATION appreciates keenly the 1954 AVA award for "outstanding membership achievement." The reflection of 2 or 3 cardinal points of philosophy in human relationships in the leadership of our state association is responsible for this successful record.

We believe, first, that all active workers in vocational education need, want and should have membership in their professional association. Second, we do not depend on only one method of soliciting membership. Several techniques are employed. Third, it has been our experience that the tautness of purse strings is inversely proportionate to the height of individual enthusiasm. Annual summer workshops for the respective services within our state association have provided wonderful opportunities for launching membership drives before the actual year begins.

As advantages, we have had wonderful leadership and assistance from members of the state department of education. Also, responsibility has been delegated and assumed in every subordinate organization of our state association.

Traditionally, Arkansas vocational teachers offer strong support to the American Vocational Association. When the first AVA Convention was held in Louisville, Kentucky, December, 1926, Arkansas had 2 delegates in attendance. From that time, Arkansas has been very active in the AVA and interest seems to increase every year.

Even before teachers begin work –when they are in teacher training –they are informed about the American Vocational Association and other professional organizations in their fields. This practice is worth a great deal in encouraging new teachers to join and in creating an outlook that causes the teacher, year after year, to feel responsible for his membership.

Memberships are collected at summer conferences. Although AVA memberships are often collected with dues for other organizations, almost all of our teachers feel that their first responsibility is the American Vocational Association.

Early in the membership year, our Arkansas Vocational Association newsletter and our various service letters list names of teachers who have paid AVA dues. As the year progresses, names of those who have not paid are listed. State supervisors often accept the responsibility for writing teachers who have not paid.

Every effort is made to see that AVA members realize maximum professional returns for their dues investment. For instance, our state association has adopted the practice of paying a major part of the expenses to the annual AVA Convention for one local teacher-member from each service. Members who attend report to teachers at state conferences and through service and state vocational association newsletters. This program has brought the AVA closer to individual Arkansas members.

The Journal presents the third in a series on '54 AVA membership award winners . . . bringing Journal readers up-to-date on promotional ideas in Delaware, Illinois, and Arkansas. Next month — — Wisconsin.

When vocational education is confronted with special problems that require AVA leadership, Arkansas teachers have progress reports from both the state vocational association and the state department of education. In certain cases our Commissioner of Education has notified local school administrators of progress on far-reaching problems.

Year after year vocational services work together more closely. This gives all of our teachers a sense of fraternity; a greater interest in all common problems; and a growing interest in the AVA. This year our services will convene in a joint teachers conference rather than in separate conferences for each group.

All in all, we in Arkansas are proud of our record but quick to give credit to many whose work preceded our own. If early leaders had not made us conscious of our investment in and responsibility to the AVA, our present job of collecting AVA memberships would be more complex. We realize too, that this fine inheritance is not sufficient for the maintenance of high membership records. We continue to redouble our efforts year after year. We want to be positive that our members receive their full value from state and national AVA membership. We want our teachers both individually and as a group to feel such personal responsibility for our membership record that they will check on each other to make sure all dues are paid.

Thus we reach our point: our 1954 membership award is a matter of great pride to every Arkansas member of the AVA. But we know that pride alone will not repeat our success in 1955. There's no doubt about it—now we must "go that second mile" in contacting our potential members.

By LeRoy Pennington
President
Arkansas Vocational Association

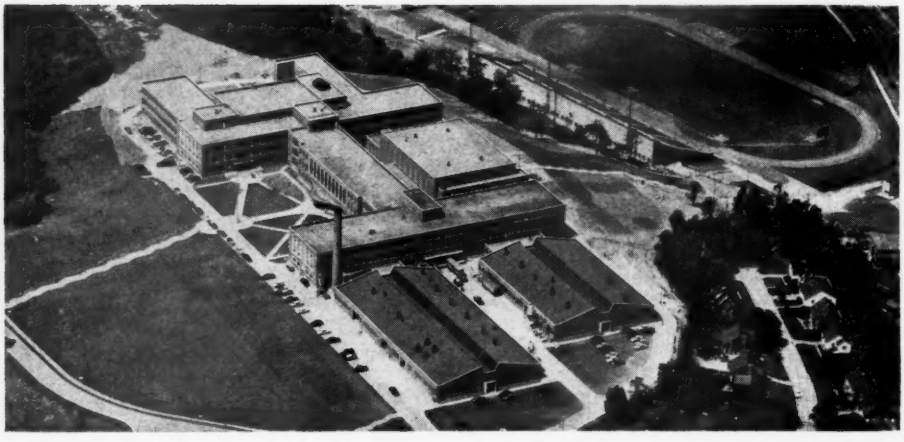
The vocational agriculture room (l.), Norman High School, Norman, Okla. (r.), is part of an architectural plan that won a 1st honor award in the 1954 American Institute of Architects Honor Awards Program. Architectural planning for all types of buildings are eligible for AIA's annual awards for the "best architectural solution of the problem." Architects: Perkins & Will, Chicago, Ill., and Caudill, Rowlett, Scott and Associates, Bryan, Tex. The Norman school includes latest facilities for vocational programs especially adapted to community needs. The vo-ag section consists of 2 rooms that extend from corridor to north wall. Construction used throughout the building: columns 14 feet on centers in rows 28 feet apart supporting the roof, glass above partitions so that, if you stand on a chair you can see from one end of the building to the other. The cafeteria and school shop flank a social court on east wall.

SO YOU'RE BUILDING A SCHOOL . . .

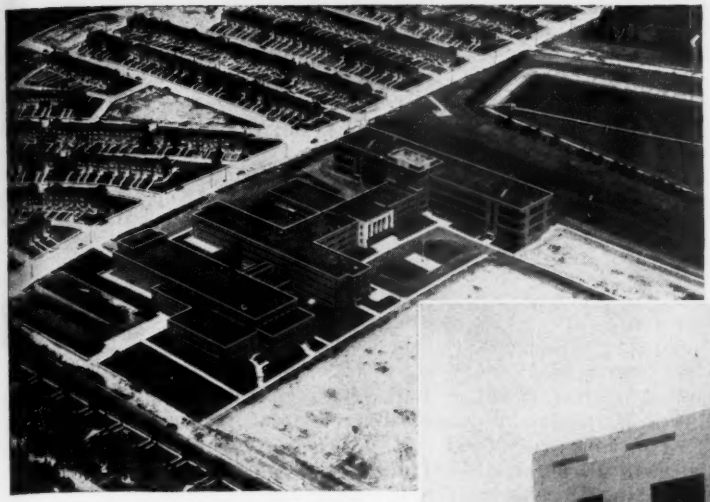
THE NEED FOR THE development of desirable architectural standards for vocational and practical arts education was the theme of a 1954 AVA convention session for the National Council of Local Administrators of Vocational Education and Practical Arts. With George Morgenroth, Director, Essex County, N. J., Vocational Schools, as overall Program Chairman and Rex Smelser, Director, Sowela Vocational-Technical School, Lake Charles, La., as Chairman of the meeting, local administrators and a representative of the American Institute of Architects presented their views. Mr. Morgenroth's record of discussion is reported in full here.

John Arundel, Director of Vocational Education, Cincinnati, Ohio, described some of the problems involved in the construction of new school facilities. To illustrate his points he presented a photographic program of progress for the construction of the Cincinnati Central High School. (Completed in 1954 – see illustration below.)

Mr. Arundel also distributed floor plans and a resume of the logistics involved in this new building that combines all of Cincinnati's vocational high school programs. Various units (a total of 9) were transferred to the new school over the period of a year and a half. On a site of 48 acres, the building has a physical volume of nearly 7 million cubic feet. Total cost for both the school and the site was approximately $6,450,000. Construction is



Left, aerial view of the new Cincinnati, O., Central High School that combines vocational programs for the entire city. Direction of Vocational Ed'n John Arundel discusses construction facts in this panel summary. Transfer of total vocational activities to the new building was complete in a year and a half. Site for the school includes 48 acres.



Inset is a closeup of main entrance to the Mergenthaler Vocational School, Baltimore, Md. Aerial photo at left shows magnitude of the new building that is the result of 15 years of precise planning. Construction of the Mergenthaler school made possible a merge of 3 Baltimore vocational buildings. Dr. Charles W. Sylvester, head of Baltimore's vocational system, was the central figure in planning for the Mergenthaler facilities. He emphasizes the importance of working closely with architects and making available to them every assistance.

of concrete and masonry in modern functional design (a modified "H"). All units are connected and the structure is 812 feet long, 332 feet wide.

Dr. Charles W. Sylvester, Assistant Superintendent of Schools, Baltimore, Md., discussed the construction of Baltimore's new Mergenthaler Vocational School. With 60 shops, 17 acres, and 42 classrooms, the Baltimore school is the result of 15 years of planning. It was opened for use in 1953.

Dr. Sylvester said very little has been accomplished in any organized attempt to develop standards for building vocational schools. He said the Baltimore building program was developed through the study of other schools and scheduled conferences with the Baltimore faculty.

Architects, he pointed out, need assistance in planning vocational school buildings. And he emphasized the fact that a community must plan its building program to meet specific, local needs. Ideal arrangements for one city may be far from ideal for another.

Careful planning prefaced the design of the Merganthaler Vocational School. Dr. Sylvester cited special arrangements for the Baltimore building that would not require attention in parallel construction elsewhere.

Flooring for the Baltimore school was designed for specific needs. It was found block flooring is good but it does not lend itself well to changes in equipment.

Wiring, plumbing and many other items can cause headaches in construction, he said. And he further suggested that school people work closely with the architect in the layout of classrooms, lab and shop facilities. After the architect is fully aware of specific requirements he can proceed efficiently with his drawings.

Robert J. Stoffer, Assistant Superintendent of Schools, San Francisco, Calif., discussed the cooperative approach to planning schools. He said the use of "educational requirements" is highly preferable to the phrase "architectural requirements." He called attention to the importance of sufficient preliminary information for architects. This will avoid construction problems.

Mr. Stoffer referred to work in California by a state level committee on building suggestions for vocational shops, classrooms, and laboratories. While these are not "standard" lists, they are used as reference material for construction programs.

John Lyon Reid, Architect and Representative, American Institute of Architects, asked a provocative question:

"What do you mean by standards?"

He emphasized the need for architects to know something about the teaching program so that they may help in planning a functional building.

Mr. Reid questions the ability of anyone to plan a building that will meet educational needs 40 or 50 years hence—although this is the goal whenever a school plant is constructed.

"How, he asked, can we plan for unknown needs?"

Requirements of individual teaching programs must be evaluated in terms of the needs of the entire vocational program, he said.

With standards developed for valuable guidance, follow up conferences by the teacher and the architects should take care of all requirements. It is wise to describe your needs to your architect and let him determine the how and why of planning and construction. He is the expert in such services on the basis of his training and experience.

Discussion that followed materialized into a few pertinent points:

- Do not build cabinets recessed into the walls.
- Diffused facilities are undesirable because they create problems in traffic flow for both students and personnel.
- The original cost of the school is important in terms of upkeep over a period of time.
- Architects prefer the use of ramps to stairs. Ramps, however, are more costly and consume valuable cubature.

A practical plan to help every industrial arts student acquire

A Working Knowledge of Drafting

FOR SOME TIME it has been universally recognized that understanding the basic concepts of drafting is as fundamental to shopwork as reading and writing is to academic pursuits. Learning drafting principles is as important to the success of the shop student as learning the use of tools. Since drafting has become the language of industry, every shop student should possess a working knowledge of its fundamental principles.

How can we successfully present these concepts so that they best meet the needs of the typical shop student? Many answers to this question have been advanced. One answer might be a comprehensive course in drafting for beginning shop students; another might be classes in blueprint reading. Sketching practice could be offered. All these solutions might be successful if the student had more than the limited amount of time provided in the average industrial arts program.

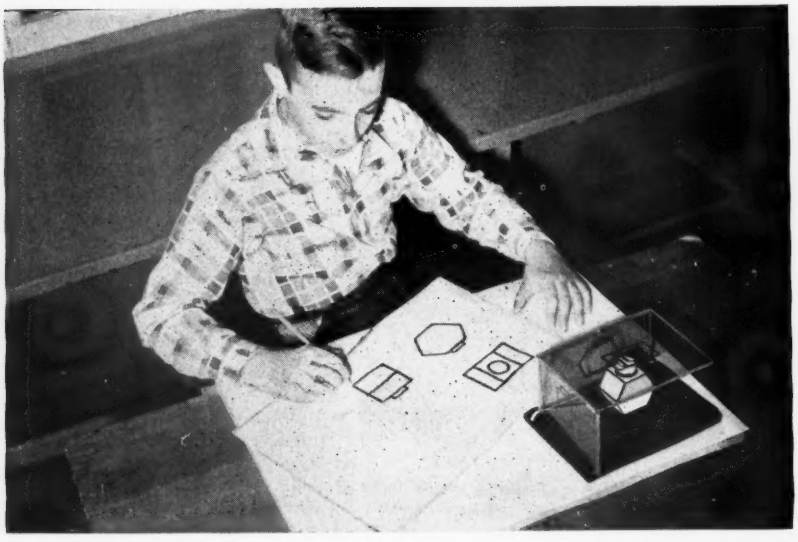
Keep in mind that the industrial arts program is not bent on developing draftsmen and engineers but, rather, in developing fundamental skills, habits, and interests common to many types of work. English composition is not taught to the high school student to make him an author but, rather, to enable him to apply his knowledge of composition to the everyday writing needs of the layman. So it is with teaching basic principles of drafting. They must be presented to meet the needs of the shop student in the minimum amount of time available. This is most effectively accomplished by integrating blueprint reading and sketching with the shop program. Such a plan is currently conducted at Avonworth High School in Ben Avon, Pennsylvania. Presented here are the program's main elements.

A beginning general shop student at Avonworth High School may choose his initial project from 5 optional projects. All 5 projects involve like operations so that fundamentals will not be neglected. Giving the student a choice on his first project has several distinct advantages. It creates job variety which in turn develops interest and it correlates drawing practice with shop work. After he has made his decision, the student is given a teacher-prepared orthographic drawing of the project which he is to construct. Because the drawing is orthographic, its projections, numerals, arrowhead, and notes mean little or nothing to the beginner. The student realizes that he must learn to read and interprete this geometric maze if he is to build his first project. And so he is ready for the first phase of the program—blueprint reading.

At this point the student has no immediate need for or interest in learning how to draw or sketch his project; his need is to interpret the drawing successfully enough to complete the job. In teaching the student to understand his project drawing, the projection box (see illustrations) is invaluable. The instructor demonstrates the use of the projection box by placing an object in the box and tracing its outline in the glass faces. For demonstration purposes familiar, practical projects that can be made by the student should be used. Excellent examples of projects that are adaptable for drawing can be found in *Drawing, Sketching and Blueprint Reading* by S. L. Coover. The student goes through the procedure of placing an object in the box and sketching its outline on the glass with a marking pencil. After removing the glass and placing it flat on the desk, he observes and studies the relationship of views. This practice should be repeated with several objects that gradually increase in complexity and finally involve an object with hidden lines and sections. For example, the student is first required to outline on the projection box glass only 2 views of the object—the front view and the side view. After these views are thoroughly understood, the top view can be outlined on the top glass and the 3-view projection is completed.

The first object should involve only the simplest of outlines, but the next should contain raised areas that involve additional object lines. The use of dotted lines to show holes passing through the projects (or

In teaching the industrial arts student to interpret a project drawing, use of the projection box is invaluable. Here a student is shown sketching from a projection box.



By Donald E. Hepler
Industrial Arts Instructor
Avonworth Union School District
Ben Avon, Pa.

simply a projection behind the front surface of the project) can be introduced. If carefully selected, the same projects used to introduce hidden lines can be used to present sectioning. The elimination of hidden lines by sectioning can be illustrated by cutting the project on the cutting plane line and showing the sectioned area by cross-hatching. The student can place this section of the project in the projection box and outline its shape on the glass as he did in previous work.

Because we are basically interested in reading drawings and not preparing them, the student is now given a project drawing to transfer on the glass of the projection box. He assembles the glass and visualizes the finished product. Checks for correct visualization can be made if the instructor sketches isometric solutions on the board and the students select the correct interpretation. If feasible, these solutions can be presented to the student in mimeographed form. The student should be able to visualize and interpret the shape of his project from the mimeographed drawing.

Visualizing the shape of the object is not enough, the student must also be able to determine the size of his project. He must learn how to read dimension. The 3 most important facts he must know about the object he is to construct are: the material from which it is to be made; its shape (which is shown by the drawing); and its size (which is shown by its dimensions). Only the essentials of locating key dimensions (such as identifying overall width, thickness, and length, positioning of holes, and use of notes) are taught.

The immediate need of the student is to read and understand the dimensions on the project drawing sufficiently well to begin work on the actual project. The instructor should note the necessary dimensions on the student's project drawing. A class question and answer exercise should serve as an effective check on the ability of the student to locate and interpret this information. This exercise can include such questions as: how long is the largest part of the project; how far from the right end will you drill a $\frac{1}{2}$" hole; and what size dowell rod is used.

There is now but one barrier to breach before starting the project. The student must be able to transcribe the dimensions of the drawing onto the project. He must learn to read the scale. Graduations on the scale should be taught down to the smallest graduations on the project drawing. The level of the graduations will naturally vary with the age of the beginning group. Again the question and answer technique is most appropriate for presentation. A wall scale ($\frac{1}{8}" = 1"$) with movable points is recommended. Once the scale is mastered, the student is ready to begin construction. Thus far the student has done no sketching other than on the projection box, and he does no actual project drawing or sketching during the construction of the first project. During this time he reads, interprets, and works only from teacher-prepared drawings.

After 6 weeks of working with teacher-prepared drawings, the student develops an interest in constructing projects of his own origin. He knows he must learn to prepare drawings or sketches. A unit in shop sketching will give him the ability to put his ideas down on paper. He will be able to plan and draw and work from his own project.

All of the materials the student will need for developing his working sketch can be presented in one or several periods. This type of unit does not require elaborate facilities.

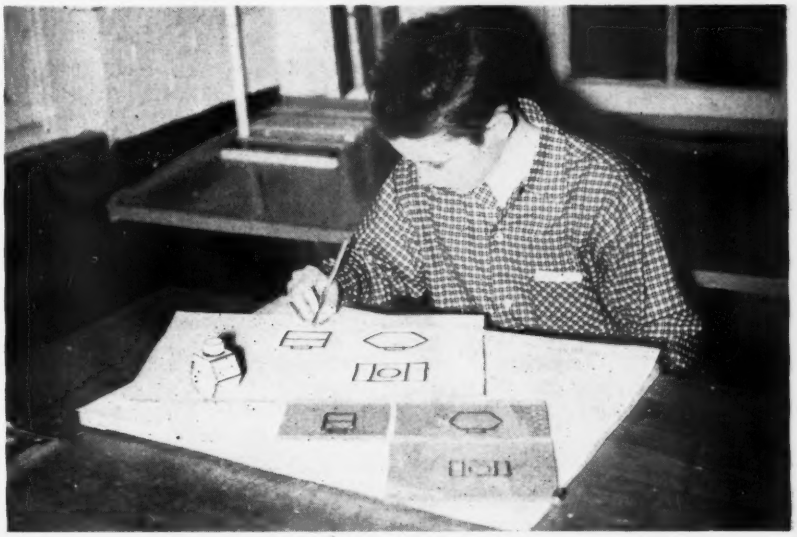
First for consideration is the type of object the student plans to sketch. The immediate goal of the unit is to enable the student to successfully complete a working sketch of his project for use in the shop. As in blueprint reading instruction, familiar objects such as the student might choose to design are most effective. Center punches, ash trays, and putty knives will stimulate interest and promote the retention of the basic concepts of orthographic projects.

The first object for student-sketching may well be an ink bottle, an airplane, an automobile, or a tie rack. Since the student knows and recognizes these objects the interpretation is simpler. They have a real rather than theoretic meaning. Later he will continue to be able to visualize what the front view, side view and top view of an automobile looks like. He would not be able to do this if he were working with an object that is not familiar to him.

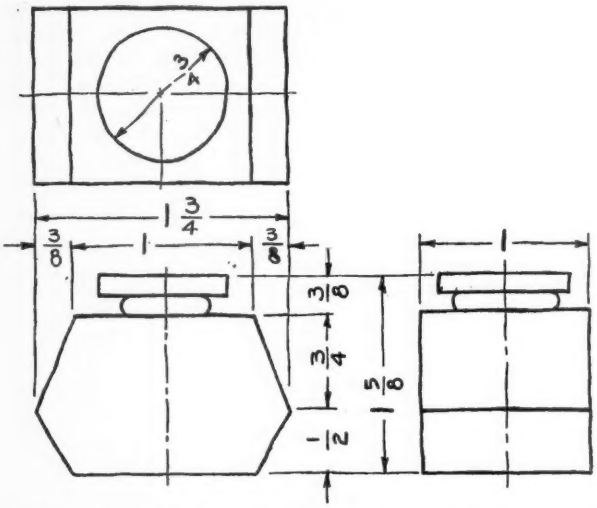
Before starting to sketch, a brief review of the use of the projection box is necessary. Each student should have a projection box, a marking pencil, and an ink bottle (or some other familiar object). With a marking pencil, the instructor outlines the front view of an object on the front glass of the box. The student will outline the front view of his problem in the same manner. The instructor should use a similar but not actually the same object as the student. At this point only the visible outlines of the object are sketched. After the front view is sketched, the side view is

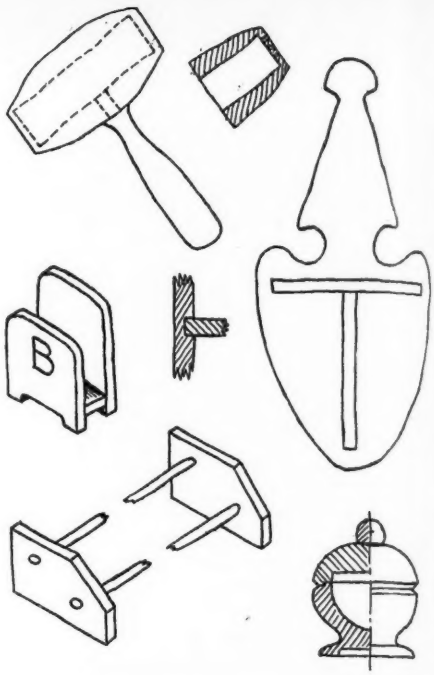
This is the second in the current Industrial Arts series of lesson plans, "When Monday Morning Comes." Because of his outstanding work in industrial arts education in his area, Mr. Hepler was invited by Dr. Shriver L. Coover to prepare this material.

Understanding drafting, the language of industry, is important for all shop students. Sketching from faces of a projection box, as here, aids first steps in learning.



Below: Basic skills and rules for dimensioning should be demonstrated by the instructor on an actual project drawing. The ink bottle sketch, shown on the previous pages in the projection box stages, here has necessary dimensions added. Right: examples of drawings exhibiting desired sketching standards.





sketched on the right end glass (as in the previous step). The same procedure is followed with the top view on the top glass. If the student is supplied with a projection box as shown, he may then place the 3 glass sides flat on his desk and observe the orthographic projection of the object.

In order that the student may sketch this project on paper, the technique of sketching should be presented. The instructor should explain that only the minimum number of views are sketched. For instance, if all the information can be presented in 2 views, why draw 3 views? General demonstrations in technique can be offered at the blackboard. The student, however, can better comprehend the technique of sketching if the teacher actually sketches at a drawing board or desk. Large classes may be broken down into groups small enough to gather around one table. The sketching demonstration should cover the alphabet of lines, basic geometric forms and the techniques of sketching parallel lines, angles, circles, and arcs. Special effort should be made to show the advantages of accuracy in using short strokes instead of continual lines. Excellent source material on techniques of sketching can be found in Unit 2 *Drawing, Sketching and Blueprint Reading* by S. L. Coover. With the aid of the projection box, other objects (gradually increasing in complexity) can be given the student to sketch. Each project should involve more and more object lines until a problem with hidden areas is introduced.

Clear, or amber plastic projects are helpful in teaching the principles of hidden areas. If the student is able to see through or into the project, he can actually see intersections and holes that would be invisible were the project made of wood or metal. He will of course show these areas with dotted lines in his sketch. Points to emphasize in teaching the technique of sketching hidden lines should include correct intersectioning, spacing of dashes, and weight of lines. After the student comprehends these principles and techniques of sketching hidden areas, the practice of sectioning can be presented.

In teaching the student to sketch a section of a project, the actual project should be cut on the cutting line and placed in the projection box for interpretation. The main reason for and the greatest advantage of sectioning is that it eliminates the use of hidden lines by exposing inward areas. Sections of familiar objects such as baseballs, bowls, and hammers, serve as excellent examples of sectioning practice. Demonstrations in sectioning techniques should cover sketching the cutting plane line, sectioning lining, revolved sections and thin sections. If the level of the beginner is extremely low, it may be advisable to postpone the sectioning unit.

The basic skills and rules for dimensioning, such as placement of overall and sub-dimensions, use and weight of dimension and extension lines, use of notes, and technique of sketching dimension lines and numerals, should be demonstrated by the instructor on an actual project drawing. Fundamental rules and principles can be presented on the blackboard, but here again actual skills and techniques can best be demonstrated if the instructor actually sketches at a desk or drawing board. Upon completion of these demonstrations the student can add dimensions to his own orthographic sketches.

If the student has grasped the fundamentals of multi-view projection and dimensioning, he is ready to start a working sketch of his own project. Through student- teacher planning the student has made preliminary rough sketches of his project. With the approval of the instructor, he develops a completely dimensioned, working sketch of his project on drawing or graph paper. Graph paper is preferred if size and detail of the project permit. This is the first practical test of the student's ability to apply his newly gained knowledge and skills. During the project sketching he is free to use any and all aids available to him (including the projection box, other project drawings, models, etc.). After this sketch is completed and spot checked by the instructor, he should transfer it on tracing paper

to facilitate reproduction. The practice of sketching on tracing paper should be continued with later projects. This enables the student to make and develop his own blueprints.

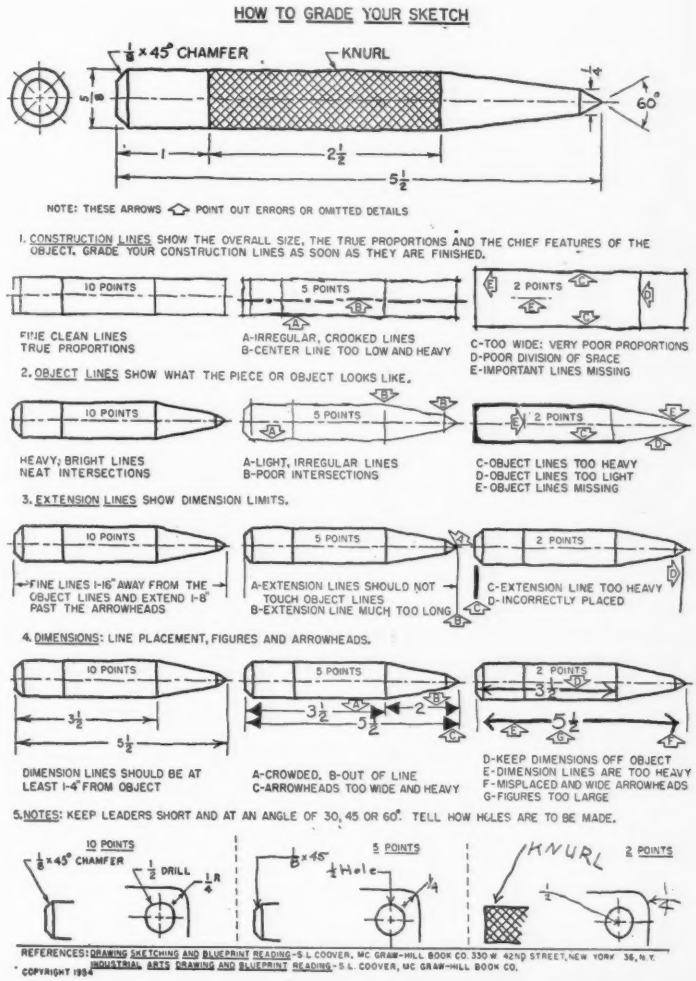
If time is available and the students are interested, a separate unit in pictorial sketching can be presented. Pictorial sketching is not only valuable for initiating student designs but it may also serve as a working sketch if dimensions are added. Oblique sketching is an excellent point of departure in that a side view of the object can be sketched with the end and top projected to the right or left oblique for depth. Demonstration and practice sketching should be done on cube or rectangle type projects. After the student comprehends the oblique method of illustrating depth, isometric sketching can be introduced. Demonstrating how the 3 isometric axes are drawn 120 degrees apart can be done on graph paper. All isometric sketching should be done on graph paper. An isometric block representing the stock from which the project is to be cut can be sketched; then non-isometric lines, holes, circles and other projections can be added or deleted. Measurements should always be made on the isometric axis or on lines parallel to it. The technique of sketching isometric circles and arcs should be the final demonstration and, if feasible, isometric dimensions may be added. If dimensions are added, keeping the dimensions in the isometric plane, keeping dimensions off the view, and the use of liberal notes should have emphasis.

The complete project drawing must be evaluated. What criteria shall be used? During the past few years, basic judging criteria for evaluating mechanical drawing have been established and standardized. For example, several years ago Dr. Coover of Pennsylvania State Teachers College and this author published a rating scale for judging mechanical drawings. It has not been until recently, however, that a successful evaluating instrument has been developed for grading sketches. Graduate students at the University of Pittsburgh and Pennsylvania State Teachers College, under the direction of Dr. Coover, have developed an evaluation form for sketching. One part is shown on this page.

The teacher can use this form as an aid in checking sketches. With it, too, the student can evaluate his own work and become familiar with the desired standards of sketching. Good, poor, and unacceptable practices are shown for each element of the sketch. The student may compare his sketch with like elements on the evaluation form. This enables him to effectively grade his sketch, and also helps him to produce sketches that adhere to accepted standards.

Results of a recent survey at the University of Pittsburgh point up the effectiveness of this grading instrument. A group of 32 mechanical drawing teachers were given a battery of student sketches to grade. They graded the sketches with their own particular methods. Although they graded the same sketches on the basis of essentially identical criteria, the results varied from 76.5 to 94.0 —a difference of 17.5 points. However when they were given a similar group of sketches to evaluate with the sketch sheet as a guide the 32 instructors varied only 4.2 points in their grading.

With the completion of the beginning sketching unit let us now take a backward glance at the program. Has the unit fulfilled its purpose? Does the student understand the basic concepts of drafting sufficiently to continue to make working sketches of his design? First he was taught blueprint reading in order that he might interpret teacher-prepared drawings. After reading and working from the teacher-prepared drawings during the construction of this first project, the student was taught to prepare plans by making working sketches of his ideas. These sketches were used by the student in the construction of his project. If the goal of the program is to meet the immediate planning needs of the typical industrial arts shop student, then this plan or a plan of this type is quite appropriate for it is organized around the principles of interest and motivation through functional planning.


HOW TO GRADE YOUR SKETCH
1/8 x 45° CHAMFER
KNURL
60°
NOTE: THESE ARROWS ⇔ POINT OUT ERRORS OR OMITTED DETAILS
1. CONSTRUCTION LINES SHOW THE OVERALL SIZE, THE TRUE PROPORTIONS AND THE CHIEF FEATURES OF THE OBJECT. GRADE YOUR CONSTRUCTION LINES AS SOON AS THEY ARE FINISHED.
10 POINTS
5 POINTS
2 POINTS
FINE CLEAN LINES TRUE PROPORTIONS
A-IRREGULAR, CROOKED LINES
B-CENTER LINE TOO LOW AND HEAVY
C-TOO WIDE: VERY POOR PROPORTIONS
D-POOR DIVISION OF SRACE
E-IMPORTANT LINES MISSING
2. OBJECT LINES SHOW WHAT THE PIECE OR OBJECT LOOKS LIKE.
HEAVY; BRIGHT LINES NEAT INTERSECTIONS
A-LIGHT, IRREGULAR LINES
B-POOR INTERSECTIONS
C-OBJECT LINES TOO HEAVY
D-OBJECT LINES TOO LIGHT
E-OBJECT LINES MISSING
3. EXTENSION LINES SHOW DIMENSION LIMITS.
FINE LINES 1-16" AWAY FROM THE OBJECT LINES AND EXTEND 1-8" PAST THE ARROWHEADS
A-EXTENSION LINES SHOULD NOT TOUCH OBJECT LINES
B-EXTENSION LINE MUCH TOO LONG
C-EXTENSION LINE TOO HEAVY
D-INCORRECTLY PLACED
4. DIMENSIONS: LINE PLACEMENT, FIGURES AND ARROWHEADS.
DIMENSION LINES SHOULD BE AT LEAST 1-4" FROM OBJECT
A-CROWDED. B-OUT OF LINE
C-ARROWHEADS TOO WIDE AND HEAVY
D-KEEP DIMENSIONS OFF OBJECT
E-DIMENSION LINES ARE TOO HEAVY
F-MISPLACED AND WIDE ARROWHEADS
G-FIGURES TOO LARGE
5. NOTES: KEEP LEADERS SHORT AND AT AN ANGLE OF 30, 45 OR 60°. TELL HOW HOLES ARE TO BE MADE.
1/8 x 45° CHAMFER
1/2 DRILL
1/4 R
1/4 Hole
KNURL
REFERENCES: DRAWING SKETCHING AND BLUEPRINT READING - S. L. COOVER, MC GRAW-HILL BOOK CO. 330 W. 42ND STREET, NEW YORK 36, N.Y.
INDUSTRIAL ARTS DRAWING AND BLUEPRINT READING - S. L. COOVER, MC GRAW-HILL BOOK CO.
COPYRIGHT 1954

A section of the evaluative criteria for school shop sketches developed in Pennsylvania.

Ohio State Department of Education Suggests

MINIMUM FACILITIES

for the Modern Vocational Agriculture Department

THE FACILITIES FOR ANY PROGRAM in public education are justified only as they are used. The facilities for a department of vocational agriculture should increase the opportunities for students to learn the vocation of farming. If this increased educational effectiveness could be measured, it would determine the extent of the investment in facilities for a department.

The number of students, variation in students, type of farming, and amount of finances available to the school all have their influence upon the facilities that can be justified for a department of vocational agriculture. A wise investment in facilities for one teacher may be inadequate for others.

Because of so many variables, it is difficult to prescribe an adequate outlay in facilities suitable for all departments of vocational agriculture. Thus, a means for evaluating the adequacy of facilities would be more appropriate and meaningful than a suggested list of detailed standards for departments. In any appraisal of the adequacy of facilities in a department of vocational agriculture, consideration should be given to a number of factors.

Provision must be made to physically accommodate an enrollment of both high school and adult students. Such items as classroom and shop space, tables, workbenches, and chairs are involved. The broad scope and nature of the instruction involving projects of considerable size dictates a need for ample shop space. Specialized laboratory equipment is needed for soil and milk testing, for the care and treatment of livestock, and for overhaul, repair, and maintenance of farm machinery, and the other areas of farm mechanics.

The well-organized classroom is adequately stocked with aids to effective teaching such as books, bulletins, charts, pictures, specimens, chalkboards, and projectors. The need for utilities such as water and electricity must be met. A favorable environment for learning will result only from an atmosphere enhanced by controlled heat, correct lighting and ventilation, and attractive decor. Wobbly tables, crudely-built cabinets, worn-out equipment, and unkempt surroundings may save money but such conditions contribute little toward developing good citizenship.

Certainly the trend in making elementary classrooms more like a home and less like an institution cannot come too quickly to vo-ag programs.

While we are thinking about physical facilities, we should remember those which are available in the community. The home farms of students are the major laboratories for learning. Their cost to the school is minor and their educational value can be great.

Many states provide recommendations for minimum facilities for departments of vocational agriculture. Some standards are dictated by state building codes and others are the result of good planning. The suggestions made by the State Department of Education in Ohio may be illustrative of what one may expect to find in modern departments of vocational agriculture.

By Willard H. Wolf
Assistant Professor, Department of Agricultural Education
Ohio State University

Ohio State Department of Education Recommendations for the Vocational Agriculture Department

- Classroom and shop in close proximity, preferably adjoining
- To house 25 to 30 students, a classroom approximately 28 feet by 28 feet
- One square foot of window space for each 5 square feet of floor space
- Windows with light-proof blinds
- Fluorescent lighting (or its equivalent) to provide 35 feet candles of light at working surface
- Outlets on front and rear walls of the classroom
- Tables 2 feet, 6 inches by 8 feet—one for each 3 students—arranged in U-shape
- A separate table for the instructor
- Sturdy, comfortable, non-folding, and noiseless chairs
- A laboratory area with hot and cold water, a sink, and other accessories suitable for testing milk and soil (or for additional laboratory activities)
- A small room adjacent to the classroom for use as the teacher's office and conferences
- Adequate storage space for apparatus, equipment, supplies, reference books, magazines, and notebooks, accessible to the classroom
- A farm shop that provides at least 100 square feet of floor space per pupil
- A lavatory at the end of the classroom and adjacent to the shop
- One outside entrance to the shop at least 10 feet high and 14 feet wide
- Polarized outlets located near power equipment and where extra lights and service are needed. Two 230-volt outlets for arc welding should also be available.
- Workbenches 34 inches high and 22 inches wide, attached to the wall with angle brackets
- An overhead track or mobile unit with a 1-ton capacity hoist
- A tool board, stationary or movable, for storage of handtools (rather than a tool room)
- An adequate supply of hand tools
- An electric power saw with (at least) a 10-inch blade; a 230-volt arc welder with a range of (at least) 20 to 180 amperes; and an electric portable drill with ½ inch capacity
- Heat provisions that permit the use of the classroom for adult and evening meetings (to be planned so that the entire school plant need not be heated)
- Facilities for adequate fire prevention and safety . . . an exhaust fan, welding shields for the welding area, safety shields on power equipment, and fire extinguishers (strategically located).

THE WISCONSIN SCHOOLS of vocational and adult education offering guidance services are of special help to the person who seeks assistance in occupational or educational planning. Testing and informational and counseling services route students to reliable decisions for their future.

With the help of tests selected in accordance with individual needs, students discover their outstanding interests, abilities, and aptitudes. They may appraise their personality characteristics.

As a further help in career decisions, information on occupations, trades, and educational institutions is offered.

Interviews with a professionally certified counselor interpret the test results. Here the individual is assisted in a thorough self-appraisal and understanding. He can establish his goals and direct himself to optimum adjustment with greater self confidence.

Based on the belief that each personality is unique, Wisconsin's guidance services are now, through an expanding, supervised, statewide program, extended locally to serve in-school and out-of-school youth and adults.

Illustrative of local guidance services are these statements from Ruth L. Coe, Coordinator, Guidance and Placement, Madison School of Vocational and Adult Education; and Richard Whinfield, Counselor, Sheboygan School of Vocational and Adult Education.

Guidance is a Personal Matter

by Ruth L. Coe

Since guidance is an individual matter and since our services are to out-of-school adults, to the blind, to rehabilitation clients, and to the local tuberculosis hospital patients as well as to our own junior (under 18 years) and adult students, the Madison Vocational and Adult School offerings are a combination of many services.

Psychological testing is available to all students. The cumulative record of each junior student is obtained from his previous school. This record is supplemented with tests and the total information is made available to the advisor who, after counseling, maps out the student's program.

Guidance workers also check with the Social Service Exchange. If social agencies have had contact with the student's family, this information is correlated with the record. If the school cannot provide adequate help, the assistance of social workers is solicited.

The approach to the adult student is different. Aptitude tests are offered at the beginning of the school year so that backgrounds can be studied for program adjustment. These tests are discussed with the counselor. If the student is interested, additional tests are offered. Here the counselor opens the door to additional guidance services through the psychological testing program.

Testing is one of the tools made available to apprenticeship committees. Tests guide committees in selecting candidates. Apprentices are also offered batteries of tests. Results and occupational success are correlated.

The services of a placement worker are available for both out-of-school-time jobs and full-time employment. Students who want part-time work are placed. In 1952, at the request of a citizens' committee, a Woman's Service Exchange was organized.

Operating in connection with the placement department, the Exchange arranges temporary, full-time, and part-time jobs for older women.

To be complete, a guidance program must have health facilities. Teachers and supervisors are free to refer special health problems to the guidance department.

The State Rehabilitation Division refers many handicapped persons to the department for batteries of tests as a guide in interpreting school needs.

Last year the Division for the Blind of the State Public Welfare Department referred cases to the Madison Vocational and Adult School for testing. This program was a real challenge because the test administrator had to give the tests without benefit of Braille.

Another challenge to our guidance counselors is in testing and offering guidance to tuberculosis patients a year or so before they leave the sanitorium. At the request of sanitorium workers, these patients are referred

Wisconsin's story of statewide counseling for youth, adults and the handicapped leaves us with a lesson learned—

Don't let them go without guidance!

"The choice of a vocation, the choice and the kind of life we would like to live, the choice of those people with whom we would like to associate, is momentous. In the individual himself are dozens of major factors, in his environment there are thousands. Somehow or other they must be brought together, the specific acts, the experiences, and the generalizations." — Dr. Franklin J. Keller, Principal, Metropolitan Vocational High School, New York, N. Y.

to the department by the State Rehabilitation Division. After a case conference the medical staff nursing representative and the sanitorium's social worker discuss with the Rehabilitation worker and the counselor the problems involved. The patient is interviewed, tests are offered, and results are interpreted to the staff. In a final interview with the counselor, the patient is offered occupational or educational direction.

One guidance department is not a unit sufficient unto itself. We work work carefully with all of the departments of the school and we are always at the service of the faculty so that maximum student-help can be offered.

Guidance Has Many Facets

by Richard Whinfield

The Guidance Department of the Sheboygan School of Vocational and Adult Education provides a wide variety of guidance services for people both in and out of school. Our primary function is to provide vocational guidance for all those who want assistance.

Since it is difficult to separate vocational guidance from educational, personal, emotional, and marital guidance, the department (with the help of specialized agencies) helps out in varying situations.

In actual practice, the services of the department extend to 5 clearly defined areas: in-school youth, adult, veterans, industrial, and miscellaneous.

The in-school service offers guidance for incoming boys and girls under 18 years of age.

Through grade school and high school records, plus a series of tests and interviews, each student is enrolled in a course commensurate with his abilities. Personal, social, and emotional problems are considered cooperatively by the instructors, the counselor, the administrator, and, sometimes, outside agencies.

For people of the community the guidance department provides testing and counseling services designed to offer direction, entrance, and progress in occupations.

As a further service to the community the school is happy to cooperate with the Veterans Test Service Program. Veterans who want formal credit toward high school completion may take the General Educational Development Tests. Equivalency ratings are determined by the high schools for which credit is desired.

In recent years there has been a call from the industries and businesses of the community for help in establishing objective methods of selecting and advancing personnel. Some of the larger companies have called upon the school to establish testing programs. For organizations not large enough to set up their own testing program the school arranges a battery of tests for specific purposes and carries out the testing, scoring and interpretation.

A number of other activities are carried on each year by the guidance department. Each year we test and counsel the seniors of the county high schools. A series of aptitude and interest tests are adminstered. With the test results and the high school record as a base, each senior is counseled.

Another activity conducted by the department is testing apprentice applicants at the request of an apprenticeship committee. Test batteries and norms have been established through a cooperative, statewide program.

The guidance department is also responsible for carrying on various local research projects. Several tests have been analyzed and local norms established. A study of the mechanical ability, arithmetic and reading level of the full-time and part-time boys and girls has been completed. An occupational information file is continually expanded. Placement services are provided through the various departments of the school in cooperation with the Wisconsin State Employment Service.

SEVEN STEPS

FOR COOPERATIVE BUSINESS EDUCATION

By John A. Beaumont, Chief Business Education Service Board of Vocational Education Springfield, Illinois

Vocational Education Bulletin No. 1 defines part-time cooperative classes as those "organized and conducted on a school and employment schedule which combines vocational instruction with occupational experience in the kind of job in which the trainee expects to become a full-time worker." This type of experience becomes a valuable part of the educational program when it is organized as a part of a specific course of instruction under the supervision and control of the board of education.

The cooperative program involves an entirely new set of experiences for teachers, pupils and employers. In the business education cooperative program the teacher-coordinator teaches office skills to office workers and selling skills to salesmen. In-service training is combined with pre-service training.

Characteristics which should identify a cooperative part-time program in business education are described here. They are not outlined in the order of their importance.

The Cooperative Program Is Understood and Accepted Within the School

While the cooperative program is a joint school-community undertaking it is basically a school program under the direction of school authorities. The school board and school personnel must understand and accept its principles. There must be an acceptance of the principle that learning can take place both within the classroom and within the community when it is under the direction of educational supervision.

There must be an understanding of the difference between work experience and cooperative ducation. Cooperative education uses work ex-

O SUCCESS

OGRAMS IN UCATION

perience as one tool in a total educational program that combines experiences in school and out of school.

The school must develop a set of goals for the program in keeping with the needs of the pupils and the community. These goals should reflect the flexible, cooperative thinking of the school and the community. Further, they should be used to evaluate the program at frequent intervals.

The cooperative program must be accepted as an integral part of the total school program. It cannot be a thing apart. Pupils involved in it are as much a part of the total school program as pupils taking other courses.

The Cooperative Program Is Understood and Accepted Within the Community

Community groups (employers, employees, and parents) must understand and accept the principle that they have a contribution to make to the educational program.

Individuals within the community must be willing to serve in an advisory capacity in order that the program will serve needs effectively. They must be willing to accept teaching and employment responsibilities. The community must accept the pupils in the program as learning workers.

Community understanding of the educational responsibilities involved is imperative if the program is to operate successfully in the educational development of youth.

The Cooperative Program Requires Competent Personnel

The school administration is charged with the responsibility of employing a teacher-coordinator who is qualified and trained to bring together business and educational groups. The teacher-coordinator must have professional and technical training in the field of cooperative education as well as occupational competency in the field in which he is teaching. He must be respected as a teacher and faculty member and considered well informed in professional and technical matters by the business community.

Competent personnel must be available in the various business establishments for training pupils in the program. On-the-job trainers should have a basic interest in youth. They should be willing to devote time and energy to training youth. Further, they should be occupationally competent in the best sense of the word.

The Instructional Program Shall Be Well Organized and Carried Out

There should be a well organized instructional program within the school which meets the basic needs of the occupation for which training is offered. Classroom instruction should be correlated with learning experiences on the job. The teacher-coordinator who is responsible for this correlation should also conduct the classroom instruction.

A written outline of the learning experiences which the pupil is to have on the job is required. There should be an understanding between the teacher-coordinator and the on-the-job supervisor regarding their responsibilities for providing these learning experiences. The teacher-coordinator, after assisting in developing a list of learning experiences, should provide the on-the-job supervisor with specific methods for accomplishing them.

Both the accomplishments of the pupil on the job and in the classroom are evaluated and considered part of the grade earned in the program. Methods for evaluation should be understood by the teacher-coordinator, the on-the-job supervisor, and the pupil.

The Cooperative Program Requires a Plan of Coordination

The teacher-coordinator, through his activities in teaching and in supervising the work of the pupil, must create a harmonious relationship that will promote the welfare and progress of the learner. Coordination, a key activity of the program, serves to adjust and combine the school instruction with actual job experience so that both have approximately the same learning value and motivating power in developing efficient work and life values. The teacher-coordinator's time for coordination is commensurate with the number of pupils enrolled and the size of the community. His visits to the various training stations should be efficiently scheduled.

In addition to visiting each training station periodically, the teacher-coordinator should contact the on-the-job supervisor to determine the pupils' progress; plan educational experiences with the on-the-job supervisor; and contact the employer and other members of management to determine whether or not the educational program is carried out within the business establishment.

The activities of the teacher-coordinator should also include meeting with various groups in the community to acquaint them with the cooperative program. He should plan to meet with parents to build a better understanding of his pupils' background and needs.

The activities of the teacher-coordinator should be reported to the school administration. The school administrator should be encouraged to occasionally accompany him on his visits.

The Cooperative Program Should Recognize Individual Pupil Needs

The teacher-coordinator should have adequate information concerning each pupil in the program for placement purposes.

His opportunities to counsel with individual pupils lead to the development of occupational competency. Instruction is developed as a result of conferences with pupils and employers.

Provisions for club activities take the place of the ordinary extra curriculum program in which the cooperative pupil will be unable to engage. The pupil must have opportunities to develop leadership and an understanding of and participation in group activities.

The Cooperative Program Requires Adequate Facilities

Adequate facilities, available within the school for teaching basic skills and knowledges, are required in the development of occupational competencies. In many instances this will call for additional business machines that are in keeping with the business equipment used in the community. In other instances this will require retail training facilities, particularly display facilities.

Consideration should also be given to the facilities available for training the student on the job. These facilities should be in keeping with modern accepted business practices within each particular community.

Field Activity for DECA,

Texas Style!

BOYS AND GIRLS together (more than 100)—members of Distributive Education Clubs from 17 high schools in west Texas—had a full day of fun, contests, and field trips when they convened at San Angelo College for the biggest Distributive Education Activity Day in the school's history February 4.

Joe Gabriel, Distributive Education Coordinator for San Angelo College, arranged the successful youth meeting that included a "luncheon on the house" at the college.

DE coordinators who want to plan similar get-togethers for the purpose of publicizing college offerings in distributive education may well look to Texas for the know-how. Or, if you want simply to provide a constructive get-together day for area youth, take a look at Joe Gabriel's blueprints.

Expert preparation with special thought for the multitudinous interests of high school youth gave early assurance of a memorable occasion.

In his advance publicity program, Mr. Gabriel sent advertising "blurbs" to possible participants. In one brief circular he said:

"For the first time we are correlating our program with that of the state convention. . . . We of the San Angelo College DE Club are very enthused over this activity and hope that your club will be able to catch our fever. . . ."

A precise time schedule and complete program for the day was distributed for publicity purposes.

Local newspapers and the college daily used good advance releases.

And the big day arrived!

At early morning registration badges were pinned on all the guests, who were welcomed by the college president at 10 AM. After a student response the day's program was reviewed.

Job application, Ad Layout, and Copy Contests followed (for a 1½-hour period session), and luncheon at the college cafeteria was served from noon until 1 PM. From 2-4:30, field trips to the Newsfoto Publishing Company and the General Telephone Company were conducted.

Prizes for the contests were presented upon return to the campus and the day was topped nicely with a matinee dance and party.

A total of $140 in prizes—donated by local merchants—was offered for 1st, 2nd, and 3rd place in the events. Judges were culled from local professional circles.

Rules for the competitions were carefully set. For the job interview event conditions as close to real life as possible were provided. Entries were scored on: meeting the receptionist (15 points); filling out application (15 points); personal appearance (20 points); and the personal interview (40 points).

The business speaking contest was not a declamation competition but, instead, a test in the skill of extemporaneous speaking. Contestants prepared speeches of not more than 8 minutes in length and were given their specified topics only 1 hour in advance of their appearance.

For advertising copy and layout awards students knew assignments for their ads only 1 hour in advance of the deadline.

And for window display, 3 local store windows were inspected by students for judging. Later, professional display men judged the 3 windows. Student winners were selected for their closest approach to the judging offered by professional men.

In an evaluation of the effort Mr. Gabriel pointed out revisions he will make in planning future programs of this nature. He says:

"I learned a lot from having this activity. For one thing, another year I think I shall try to plan more activities for the students who are not participating in the contests.

"For another, some types of organized recreation needs to be planned. Also, I believe it would be better if it were a 2-day affair as most of the clubs had a long ride home at the end of the day."

And what did the youthful guests say?

"We had a wonderful time!"

Because learning together—on a festive occasion—is an experience they need. And they look forward to it with the same enthusiasm that stamps their eager participation!

The boys and girls together who are preparing for careers in distribution—an economic facet that swiftly climbs in import as a determinative for America's standard of living—face a demanding future. For them, each school-time experience can steady youthful entrance and service to America's economic future. And their clubwork, for study or fun, can be deftly shaped as related preparation for working and living in a complex world.

1955 AVA PROGRAM OF WORK

Activities of Special Emphasis

1. Percentage of Membership Increases for AVA to Achieve in 1955:

Agriculture	10
Business	11
Distributive	40
Home Economics	10
Industrial Arts	25
Trade and Industrial	20
Others	2

2. Increase in Public Information Services

Work to increase understanding of vocational education program among organized groups operating on national, regional, state, and local levels. Assemble and disseminate facts on vocational education for all groups and persons who need and can use such information.

3. Special Studies by Committee and Staff.

(a) The needs and services of the AVA.

(b) The problem of recruiting industrial arts teachers.

(c) Continued study to determine if there is need to change methods of election of AVA officers.

(d) Continued efforts to determine attitude of AVA members with regard to holding AVA conventions during summer months.

(e) Continued support for strengthening of the Vocational Division of the U. S. Office of Education.

4. Legislative Program

(a) Urge increase in funds for vocational education at local, state, and national levels. Request Congress to appropriate the full amount authorized under the George-Barden Act, to be distributed on the basis of the formula set forth in the Act.

(b) Reaffirm support of the original provisions of the Smith-Hughes Act and oppose any amendments to the basic Acts that would tend to lower standards or weaken the administration of vocational education in the several states.

(c) Continue efforts to get federal funds for distributive education distributed on an equal basis with the other phases of vocational education and in keeping with the George-Barden formula.

(d) Support legislation authorizing an appropriation of federal funds for school house construction and other educational purposes.

(e) Support legislation that will make government surplus property available on a donable basis for educational use in the public schools.

1. Means of Accomplishment

(a) AVA Executive Committee to assign goal quotas to states on a potential membership basis.

(b) New techniques and plans to be developed for the promotion of membership.

(c) Articles about successful membership drives in states to appear in AMERICAN VOCATIONAL JOURNAL.

(d) Booklet on organization of state associations, including ways and means to increase membership, to be prepared and published by AVA Committee on Research and Publications.

(e) Trophies to be awarded for highest membership achievements.

2. Means of Accomplishment

(a) Efforts to be continued to get all states and political subdivisions to pay their full quota in the public relations fund.

(b) Invite key laymen to attend AVA convention.

3. Means of Accomplishment

(a) The newly-appointed Needs and Services Committee to make a survey of 10 per cent of AVA membership to ascertain proper functions of AVA headquarters and to determine funds required to render such functions effectively.

Each affiliated association to study the need for increasing AVA dues and send instructed delegates to next convention to vote on the question of increasing dues.

(b) A committee to be appointed to foster and support an aggressive recruitment program for industrial arts teachers.

(c) A special committee to study the AVA constitution and make suggestions as to changes, if any, that should be made as to method of electing officers of the AVA. Executive committee of each affiliated association to make recommendations as to changes that may be desirable in election of officers.

(d) Each affiliated association to hold a referendum to determine interest in holding AVA conventions in summer.

(e) Confer with Office of Education in the appointment of a committee to study the overall program of distributive education.

4. Means of Accomplishment

(a, c, and d) Presentation of needs to proper legislative bodies.

(b) Record opposition to changes in basic vocational education acts should this become necessary.

(e) Present testimony to Congressional committees stating AVA stand as to support of appropriate measure providing for the proper disposal of surplus property.

From the Office of Education

When national officers of the Future Farmers of America visited President Eisenhower February 2 they were accompanied by Secretary Oveta Culp Hobby, Commissioner S. M. Brownell, Acting Assistant Commissioner James H. Pearson, and W. T. Spanton and A. W. Tenney of the Agricultural Education Branch.

• • •

Silas M. Ransopher, Specialist in Trade and Industrial Education, conducted a conference for the visitors from overseas who have spent 6 months in visiting various trade and industrial schools and teacher training institutions. The participants evaluated their experience, and made suggestions for the improvement of plans for future overseas visitors. Attending the conference were representatives from Belgium, Norway, Ceylon, Australia, Germany, and Finland.

• • •

Margaret Alexander, program specialist, and Beulah Coon, specialist for studies and research, worked with the home economics staff at the New Jersey College for Women January 26-28 on a study of their total home economics program. Attention was given to ways of strengthening both the undergraduate and graduate programs.

The pamphlet "Safety for the Worker", prepared during World War II for use in War Production Training classes, is being revised so that it may be used in all-day trade and industrial training classes. The revision is a cooperative project of the Trade and Industrial Education Branch and the Bureau of Labor Standards, U. S. Department of Labor. When completed, the pamphlet will be available to schools through the U. S. Government Printing Office.

• • •

Howard K. Hogan, of the Trade and Industrial Education Branch, has been attending meetings of the American Federation of Labor Subcommittee on Vocational Education which is studying the relationship of trade unions and vocational education. Similar conferences have been held with several management groups, such as the Associated General Contractors of America and the Structural Clay Products Institute.

• • •

During February and March W. N. Elam and A. H. Hollenberg of the agricultural Education Branch worked with State personnel in North Carolina and Arkansas making an evaluation of farm mechanics instruction in teacher training institutions and local departments of vocational agriculture.

• • •

E. J. Johnson will represent vocational agriculture and the Future Farmers of America in the Young Outdoor America conference in Chicago, Illinois, March 30-31. The annual meeting is sponsored by the Izaak Walton League.

• • •

H. B. Swanson of the Agricultural Education Branch worked recently with representatives of the Department of Agriculture in developing a travel itinerary for 19 Brazilians recently graduated from agricultural colleges who will spend about two months this spring studying programs of agricultural education, extension, and research in the United States. The Brazilian group will travel through the country by bus, making extended stops in Florida, Texas, and Indiana.

• • •

In Hawaii on field work is Rua Van Horn, Home Economics Education Branch. She arrived in the Islands February 26 to work until March 24 with home economics teachers and supervisors at the secondary and college levels. Included in her work is service as consultant to a series of 5 conferences on secondary school curriculm in home economics.

• • •

Johnie Christian, Home Economics Program Specialist, was in charge of the 1955 Central Regional Conference in Home Economics Education, held in Chicago February 14-18 and attended by more than 200 home economics education workers from 13 States. Theme of the program Monday through Thursday was "Recent Developments in the Study of Human Relationships and Their Implications for Home Economics Education." It was developed by speakers, panel discussions, and small-group work. The Friday sessions of the conference were given to meetings of eight special interest groups—Research, Improving the Teaching of Foods, Improving the Teaching of Clothing, Problems Related to FHA, Teacher Education, City Supervision, State Supervision, and Supervising Teachers. Assisting with the conference were Berenice Mallory and Beulah Coon of the Home Economics Education Branch and Marguerite Scruggs, National Advisor of the FHA.

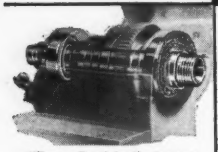
SHELDON Precision LATHES

CHICAGO U.S.A.

Better SCHOOL LATHES

—for students

—for instructors



"Zero Precision" tapered roller bearings support the spindle, retain their accuracy, and eliminate costly bearing maintenance.

Modern Apron with new and improved friction disc type clutch for power feeds has a built-in safety interlock.

Quick Change gear box has wide number of pitches and feeds available, eliminates changes in end gearing, permits rapid selection of feeds while lathe is running.

OTHER QUALITY FEATURES INCLUDE:

CARRIAGE, HEADSTOCK AND TAILSTOCK HAND-SCRAPED TO BED.

LARGE MICROMETER DIALS, TAPERED TAKE-UP GIBS.

DOUBLE NEOPRENE COGGED V-BELTS TO SPINDLE.

HEAVY, RUGGED BED.

SHELDON PRECISION LATHES are standard in leading vocational schools and industrial arts shops. They are of modern industrial design — in weight, power, capacity, speed range, extreme accuracy, safety, ruggedness and long life. Hence they permit practical shop courses and worthwhile projects.

They accustom students to "big lathe" power and controls; to big lathe "feel" and performance, building student confidence satisfaction and skill. Still they are safer, with new safety switches, aluminum shear pins, safety color code, and all gearing, belts and drive pulleys completely enclosed.

They minimize supervision and work load requirements for instructors. They end laborious and costly maintenance. The large "Zero Precision" Taperer Roller Spindle Bearings hold their accuracy in spite of student abuse. Bearing maintenance is reduced to a fractional turn of a take-up collar after long hard usage.

Produced by modern methods in a specially equipped machine tool plant Sheldon Lathes are priced to school budgets.

Write for catalog describing 10", 11", and 13" accessories and attachments, swing lathes, Milling Machines and Shapers.

SHELDON MACHINE CO., INC.

4245 N. Knox Ave., Chicago 41, Illinois

Association News and Personals

NEW OFFICERS

Arkansas
LeRoy Pennington, President; Fred Graham, Secretary-Treasurer. Vice Presidents: Walter Sawrie, Industrial Arts; Ben R. Williams, Voc'l Rehabilitation; Sarah Barnett, Home Economics; Charles Ross, Trade and Industrial; Mrs. Virginia Bonds, Distributive Education; J. A. Barton, Agriculture. Section Presidents: Bob Black, Distributive Education and Diversified Occupations; George Freese, Trade and Industrial; Ernestine Camp, Home Economics; T. F. Brantley, Agriculture; Brad Walker, Vocational Rehabilitation; Mrs. Archie Adams, Occupational Information and Guidance; Elmer L. Davis, Industrial Arts.

California
California Association of Distributive Educators: Richard O.Tigner, President; Elwood Chapman, 1st Vice President; Elizabeth Helseth, 2nd Vice President; Dorothy Mary Bitner, Secretary-Treasurer; and Mrs. Marilene Van Wagenen, Editor.

Indiana
Joe Metzger, President; Donald Pound, Vice President; Virgil Telfer, Secretary-Treasurer. Divisional Directors: Harold Grosskreutz, Agriculture; Janet Land, Home Economics; Ammon Swope, T & I and Industrial Arts; Harris R. Brown, Distributive Education; Lois Nickel, Business Education; Ort Walter, Voc'l Rehabilitation.

Maryland
R. Lee Hornbake, President; William J. Hucksoll, 1st Vice President; Mabel S. Spencer, 2nd Vice President; J. D. Lonnholm Secretary; and Vernon Byus, Treasurer.

Minnesota
Minnesota Trade and Industrial Association:—Forrest Jones, President; John C. Hansen, Vice President; Royalston Jennings, Secretary-Treasurer.
Minnesota Industrial Arts Association:—Robert Worthington, President; Malcolm W. Doane, Vice President; Fred Rowell, Secretary-Treasurer.

North Dakota
James A. Horton, President; Donna Wohl, Vice President; Ben H. Barnard, Secretary-Treasurer.

Ohio
Eugene E. Hart, President; Paul Mechling, Vice President; Ralph J. Woodin, Executive Secretary; William B. Logan, Membership Secretary; Margaret Liggett, Recording Secretary. Section Presidents: Paul Mechling, Agriculture; Leo Alkire, Distributive Education; Mrs. Margaret Zody, Home Economics; Eugene E. Hart, Trade and Industrial.

Puerto Rico
Enrique Irizarry, President; Antonio Figuerroa, Vice President; Pedro J. Torres Virella, Secretary; Pio A. Torres, Treasurer.

South Dakota
Grace Joyce, President

Washington State
Karl B. Kluge, President; Mrs. Leona Hassenmiller, Past President; Mrs Florence L. Martin, Secretary-Treasurer. Section Chairmen: Lewis W. Porter, Agriculture, George Askegaard, Distributive, Mrs. Miriam Nelson, Home Economics; John Elder, Rehabilitation; Norman Kearney, Trade and Industrial.

Saseen Heads '55 Convention Committee

Albert Saseen, Atlantic City, N. J., Superintendent of Schools, has been appointed General Convention Chairman for the 1955 AVA Convention, Atlantic City, N. J., December 5-9.

General Convention Chairman Albert Saseen

Assisting Mr. Saseen as members of a General Steering Committee are: Henry D. Bourhill, President, New Jersey Council of Local Administrators of Practical Arts and Vocational Education; Philip Haney, President, New Jersey Section of the AVA; Dr. Albert E. Jochen, New Jersey State Director of Vocational Education; George Morgenroth, Director, Essex County Vocational Schools; and Frederick Porges, President, New Jersey Vocational and Arts Association.

• • •

● Dr. W. A. Smith was re-elected Editor of the **Agricultural Education** magazine at the 1954 AVA Convention. George Hurt, Texas, was elected Secretary-Treasurer. Effective January 1, subscription rates for the publication advanced from $1.50 per year. College trainees may subscribe for 75 cents a year.

Donovan Armstrong Joins USOE Staff

Donovan R. Armstrong, Louisiana State Supervisor of Distributive Education since 1940, began his new duties as Program Specialist for Distributive Education, February 15.

As Louisiana's head of distributive education, Mr. Armstrong planned, organized and supervised vocational training programs for workers in distributive occupations. The state's public school programs in distributive education have been carried on by 50 teachers for high school and out-of-school youth and adults under Mr. Armstrong's direction. In the same period, he also served as coordinator of veterans education, supervisor of business education, and coordinator of national defense training.

Prior to 1940 Mr. Armstrong was State Supervisor of Distributive Education for the Texas State Board for Vocational Education and itinerant teacher trainer for the State of Texas. From 1931-1938 he held related teaching positions in Texarkana, Tex. He earned his BS at Tulane University and his M. Ed. at Louisiana State University.

A Life Member of the AVA, Mr. Armstrong served the orgganization as Vice President for Distributive Education for a 3-year term (1950-1953).

• • •

● **A Business Education Policy and Planning Committee** was created at the 1954 AVA Convention in San Francisco. The new committee includes Arthur Walker, AVA Vice President for Business Education; William Blackler, immediate Past AVA Vice President for Business Education; A. Donald Beattie, President, National Association of Supervisors of Business Education; Estelle Phillips, NASBE Secretary-Treasurer; and Mrs. Cora Warner, Supervisor of Business Education, Los Angeles, Calif., public schools, who was designated to serve a 1-year term ase a committee member at large.

National FFA officers, in Washington for annual winter meetings of the Board of Student Officers, had a brief visit with President Dwight D. Eisenhower, Feb. 2 . Philip Brouillette, Richford, Vt., student secretary; Jay Wright, Almo, Nev., V. P., Pacific Region; Bobby Futrelle, Mt. Olive, N. Car., V. P., Southern Region; Bill Gunter, Live Oak, Fla., nat'l President; Lowell Gisselbeck, Watertown, S. Dak., V. P., Central Region; and Charles Anken, Holland Patent, N. Y., V. P., North Atlantic Region.

States That Have Surpassed AVA Membership Potential

Nine states have exceeded the membership goals established by the AVA Executive Committee. As of Feb. 21, the following states have "gone over the top:" Delaware, Georgia, Illinois, Minnesota, Oklahoma, South Carolina, Virginia, Wisconsin, and Wyoming.

* * *

● **Thomas N. Johnston,** Director of Vocational and Adult Education, Knoxville, Tenn., public schools, and Principal, Fulton High School, was unanimously elected Superintendent of Schools by the City Board of Education December 29. Mr. Johnston will assume his new duties in June.

* * *

● Dr. R. W. Canada, Head, Vocational Education, Colorado A & M College, Fort Collins, is the new President of the **National Association of Teacher Trainers in Agricultural Education,** for 1955-56. Dr. George Ekstrom, Head, Agricultural Education, University of Missouri, Columbia, Mo., is Secretary.

* * *

● R. E. Bass, Virginia State Supervisor of Agricultural Education, is Vice President of the Agricultural Education Division of the AVA (as AVA Vice President for Agricultural Education). President of the **State Supervisors of Agricultural Education** is Owen E. Kiser, New Jersey, who also will serve as 1955 Convention Program Chairman for Agric. Educ. Agricultural education representatives to the AVA Advisory Council are Neldon Taylor, Redding, Calif., and Robert Wall, Luray, Va., (alternate) ,NVATA; Dr. R. W. Cline, University of Arizona, Tucson, Ariz., and Dr. W. H. Martin, University of Connecticut, Storrs, Conn., (alternate), Teacher Trainers; W. J. Parent, Louisiana, State Supervisors; and Dr. George F. Ekstrom, University of Missouri, Columbus, Mo., and Prof. V. G. Martin, Miss. State College, State College, Miss., (alternate), from the combined agricultural groups.

* * *

● **The National Association of State and Local Supervisors of Industrial Arts** have named Gordon Funk, Supervisor, Industrial Arts, Los Angeles Public Schools, Los Angeles, Calif., Program Chairman for the 1955 AVA Convention.

* * *

● Gertrude Roskie is Chairman of the **National Association of Teacher Educators in Home Economics.** Miss Roskie is Professor of Home Economics Education, Montana State College.

* * *

● Mrs. Anna Schneider, vocational homemaking teacher at Toms River High School, New Jersey, is President of the **National Association of Vocational Homemaking Teachers.** Her address is 205 Dayton Ave., Toms River, N. J.

To avoid delay in receiving the JOURNAL when you change your address, be sure to notify the AVA office of your new location promptly. Include both old and new address.

MARY GILLESPIE

Mary Gillespie, State Supervisor of Home Economics in New Mexico since 1940, died in Fayetteville, Arkansas Nov. 25.

Nationally known for her contributions to home economics education, Miss Gillespie began her career in this field as a teacher in Clovis, N. M., in 1927. In 1937 she went to the State Department staff as Assistant State Supervisor and teacher trainer.

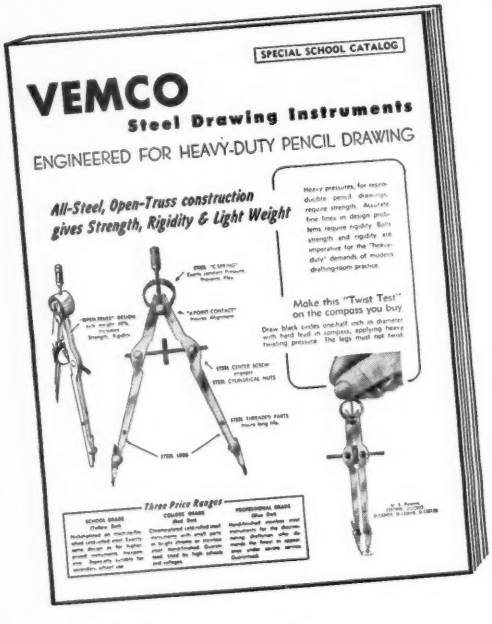
Miss Gillespie promoted and developed homemaking education in New Mexico high schools to a place of recognized leadership. An active AVA member, she served a term as JOURNAL Editor for Home Economics.

ROBERT O. BEEBE

Robert O. Beebe, former New Jersey Vocational and Arts Association President and retired director of the Essex County Vocational and Technical High Schools, died December 25 after a long illness. He was 78. He had lived at Lake Hopatcong since his retirement in 1944.

Mr. Beebe was born in New Haven, Conn., where he had early experience in vocational education. He became director of the Essex County schools in 1918. He was active in many educational, fraternal, and civic organizations. He was a life member of the AVA and the Woodmen of the World; a member of the American Society of Mechanical Engineers, American Association of School Administrators, Civic Club Council of Newark, and the executive board of Robert Treat Council, Boy Scouts of America; an honorary member of the New Jersey Council of Education; and past president of the Newark Lions Club and Epsilon Pi Tau.

FREE School Catalog


SPECIAL SCHOOL CATALOG
VEMCO
Steel Drawing Instruments
ENGINEERED FOR HEAVY-DUTY PENCIL DRAWING
All-Steel, Open-Truss construction gives Strength, Rigidity & Light Weight
Make this "Twist Test" on the compass you buy
Three Price Ranges

Illustrates how use of Vemco Steel Instruments enables schools to **SAVE 32%**

Write for your free copy today,

V. & E. MANUFACTURING CO.

P.O. Box 950M Pasadena 20, Calif.

Public relations problems?

AVA's newest publication gives you all the answers

Here's what you'll get when you order

YOUR PUBLIC RELATIONS

10 chapters, 88 pages of practical information ready to work for you

90 examples of practices successfully in use by educators in the field

29 how-to-do-it sections including Pointers for Radio, Aids to Authors, Effective Exhibits, How to Prepare News Releases, Pointers for Speech Makers, Action Programs

Order **YOUR PUBLIC RELATIONS** from AVA, 1010 Vermont Ave. N.W., Washington 5, D.C.

$1.00 each: 10 per cent off on orders of 10 or more

Around the nation

—WITH VOCATIONAL EDUCATION

Subcommittees for Appropriations

Listed here in full are members of the House and Senate subcommittees that handle appropriations for the Department of Labor and the Department of Health, Education, and Welfare (the latter includes vocational education).

HOUSE

John E. Fogarty (D), Chairman	Rhode Island
Antonio M. Fernandez (D)	New Mexico
Henderson Lanham (D)	Georgia
Winfield K. Denton (D)	Indiana
John Taber (R)	New York
Ben F. Jensen (R)	Iowa
T. Millet Hand 2d (R)	New Jersey

SENATE

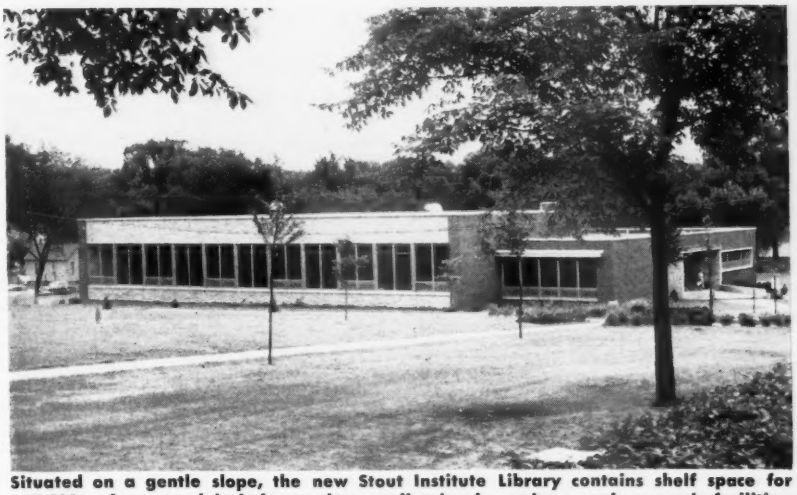
Lister Hill (D), Chairman	Alabama
Dennis Chavez (D)	New Mexico
Richard B. Russell (D)	Georgia
Harley M. Kilgore (D)	West Virginia
Warren G. Magnuson (D)	Washington
John C. Stennis (D)	Mississippi
Edward J. Thye (R)	Minnesota
Karl E. Mundt (R)	South Dakota
Margaret Chase Smith (R)	Maine
Henry C. Dworshak (R)	Idaho
Charles E. Potter (R)	Michigan
Carl Hayden (D), (Chairman Ex Officio)	Arizona

Lewis Wilson Points Up Trend to Industrial Employment

"Forty Years of Industry—Past and Future" were scanned in the theme session of the 40th anniversary meeting of Associated Industries of New York State recently.

Dr. Lewis A. Wilson, Commissioner, New York State Department of Education and President, University of the State of New York, formulated the theme and, in his major address, offered a picture of the industrial worker today:

"The marked improvement in the working conditions of your industries has had a profound influence on the attitude of young people toward industrial employment. Forty years ago, most of the workers came home at night dressed in overalls, often covered with dirt, carrying a lunch pail. Many workers came home physically exhausted after 9 or 10 hours of heavy manual labor. Today, modern industry with better facilities, including lockers, sanitary facilities, lunch rooms and cafeterias, and health services, make it almost impossible to distinguish at the gate of an industrial plant between the men who work in the office and the men who work in the shops and laboratories. As a matter of fact, many of my friends tell me that the men and women who work in the shops and laboratories usually drive better-looking automobiles than those who work in the offices. These changes have resulted in an entirely new attitude on the part of the young people toward industrial employment. They are no longer only interested in white collar jobs. In addition, with modern transportation, our factories are no longer located at the end of the street car lines. . . ."



Situated on a gentle slope, the new Stout Institute Library contains shelf space for 107,000 volumes and includes modern audio-visual, seminar, and research facilities.

NEW STOUT INSTITUTE LIBRARY

Designed to house 107,000 volumes, the new library building now in use on the campus of Stout Institute, Menomonie, Wisconsin, has been constructed with tiered shelving, each tier to contain 40,000 volumes. An additional 27,000 books can be contained in separate textbook facilities.

The center of attraction in the $650,000 structure is a 128 x 47 foot reading room, whose entire north exposure is composed of wall-to-ceiling windows. Over 250 students can be seated comfortably at one time.

Special planning has gone into the location of magazine facilities. Display space for 175 current periodicals is available in one section of the main reading room.

Also on the main floor of Stout's library are workrooms, offices and a special Memorial Browsing Room that offers a wide variety of reading, both of a professional and avocational nature. Additional study and seminar rooms are contained at the basement level. Of great interest to most library visitors is a 95-seat audio-visual theatre, also in the basement area. Fitted with movie-theatre type seats, its facilities include a projection and recording room.

The exterior of the library is finished in the famous Menomonie red brick, product of the local community.

Vitally concerned in the construction of the new Stout Institute library were Dr. Verne C. Fryklund, President of the college; Robert L. Pierce, President of the Stout Board of Trustees; and Miss Lillian Froggatt, Stout Library Director.—By Dr. THOMAS F. FLEMING, Associate Prof., English and Journalism, Stout Institute.

Senator Hill Details School Emergency

Senator Lister Hill (D), Ala., Chairman, Senate Committee on Labor and Public Welfare, offered a strong statement in behalf of federal aid for school house construction at the opening of hearings on emergency school construction legislation, January 27, 1955.

The Senator pointed to the fact that

". . . over one-half of the classrooms in the nation are so overcrowded as to make effective teaching almost impossible. Every 15 minutes of everyday our tremendous birthrate is bringing 30 more children into the population—creating a need, in effect, for another classroom and another teacher. Within 3 years, our shortage of classrooms throughout the nation will have climbed to 600,000. . . .

"People throughout the country are demanding, rightfully, that the Congress act to remedy these intolerable condtiions. They are troubled not only for the well-being of the children themselves, but by the possibility that our superiority in the struggle against Communism may be menaced by our failure to maintain American brainpower to overbalance the Soviet bloc's massive brawn-power. . . ."

STATISTICS FOR SCHOOLMEN

In 1939 the average supermarket grocery store carried in stock about 1,000 items. Today the same store carries over 5,000 items.

The average teacher remains in the profession about 10 years. This means school executives have to replace about 10 percent of our total teaching force each year. (U. S. Commissioner Brownell before the Gwinn Committee investigating Federal activity in education.)

Only about 155,500 young men are registered as apprentices—and we could use 10 times as many to assure an adequate supply of trained craftsmen.

One in 5 young men in high school wants to be an engineer, the Scholastic Magazine student-opinion poll discovered. As for girls, one out of 4 prefers a career in business.

The average American high school is a small school, enrolling between 300 and 340 pupils. And the high school with extremely large enrollments is becoming a thing of the past (schools with 5,000 enrollment have decreased in number from 41 to 5 during 1938-1952).

Books and Bulletins

Practical Nursing Procedures, by Ruth V. Bien. Delmar Publishers, Inc., Mountainview Ave., Albany 5, N. Y., 1954. 288 pages, $2.80.

The content for this instructional guide was determined in accordance with the U.S. Office of Education's Analysis of the Practical Nurse Curriculm. 2Organized in units of instruction, it is intended to serve not only the needs of the practical nurse trainee, but also those of nurses' aids, home nursing and first aid programs.

• • •

Body Structure and Functions, by Elvira B. Ferris and Esther G. Skelley. Delmar Publishers, Inc., Mountainview Ave., Albany 5, N. Y,. 1954. 132 pages, $1.70

Prepared for practical nurse trainees, this text-workbook offers 48 instructional topics in 11 units that cover each of the body systems.

• • •

Recommended Procedures For Obtaining Automobile Parts And Assemblies For Instructional Purposes From Motor Vehicle Manufacturers, prepared by Automotive Industry—Vocational Education Conference Group on Public School Automotive Instruction, 320 New Center Building, Detroit 2, Michigan, 1954. 4 pages.

An outline compiled by the AI-VE Conference at the request of automobile mechanics teachers explaining the best procedures for obtaining automotive equipment for instructional purposes.

• • •

Aids For Teaching of Automobile Mechanics Available From Automobile And Related Industries, prepared by Automotive Industry—Vocational Education Education Conference Group on Public School Automotive Instruction, 320 New Center Building, Detroit 2, Michigan, 1954. 19 pages.

A bibliography of charts, manuals, catalogues and other teaching aids available to auto mechanics instructors from motor vehicle manufacturers, suppliers, manufacturers and other organizations.

Television and Radiomen, by Edward M. Noll. The Macmillan Co., 60 Fifth Ave., New York 11, N. Y., 1955.778 pages, $10.00.

New chapters on UHF, color television and transitors plus a complete modernization of the original work are features of this revised edition.

• • •

The Art of Tile Setting, by E. W. Carls and L. G. Wines. Chas. A. Bennett Co., Peoria, Ill., 1955. 224 pages, $3.75.

For the apprentice or craftsman, here is a complete course in tile setting. Step-by-step procedures are simplified.

• • •

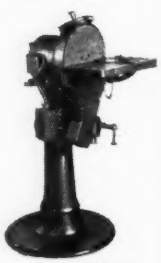
The Arts of Costume and Personal Appearance, by Carolyn Ruby, Bess Steele, and Mary E. Guthrie. John Wiley & Sons, 440 Fourth Ave., New York 16, N. Y., 1955. 370 pages.

Revised from the original work by the late Grace Margaret Morton, this basic text is for classes in costume design and clothing selection.

Let this low-cost "Oliver" Disk Sander help students do their best

Every student in your shop needs this machine for straightline sanding, and for fitting small pieces in cabinet work. In many shops it is also used for grinding and finishing light metals.

This handy "Oliver" has a 15" disk, with table that tilts 45° down, 25° up. Two gauges enable you to handle angular and circular work without fuss. Angle adjustments have accurate graduations. Write for Bulletin 182D.



Also available with convenient Belt Sanding or Grinding attachment.

OLIVER MACHINERY COMPANY

Since 1890 GRAND RAPIDS 2, MICH.

Now Available! . . .

PRACTICAL NURSING PROCEDURES

Ruth V. Bien, R.N. *Oct. 1954*

A new publication presenting basic skills and pertinent related information essential for the practical nurse. Two color printing throughout. Content is of value to nursing aides, Red Cross nursing personnel, for home nursing use as well as for practical nurses.

288 pages in two colors	*List*
Sewed paper covers	*$2.80*

BODY STRUCTURE and FUNCTIONS

Esther G. Skelley, R.N. and Elvira A. Ferris, M.A.

Nov. 1954

Just off the press. Correlates the study of body structure and functions with nursing skills. Printed in two colors. Intended for practical nurses, students of cosmetology and biology, and for those who need to know how the human body is organized and how it functions.

144 pages in two colors	*List*
Plastic bound	*$1.70*

SEND NOW FOR EXAMINATION COPIES

DELMAR PUBLISHERS, Inc.

Albany 5, New York

In Canada—Thos. Nelson & Sons—Toronto

BIG SAVINGS LEATHER

Now, for the first time, you can buy full sides of top grain cowhide at our special, amazingly low "Tannery-to-you" prices. For details, write Dept. 3, W. D. Byron & Sons, Williamsport, Md. Fine cowhide tanners since 1832.

Handcrafts for Elementary Schools

Moore - Hamburger - Kingzett

A reliable guide for each step in a school handcrafts program for younger children. Detailed directions are given for organization and procedures. There are hundreds of designs and patterns adaptable to classroom facilities, and step-by-step illustrations show how to make each object.

D. C. Heath and Company

Sales Offices: New York 14, Chicago 16, San Francisco 5, Atlanta 3, Dallas 1

Home Office: Boston 16

AMAZING NEW WAY TO BECOME A SKILLED DRAFTSMAN!

Fascinating New Book —DRAFTING BY THE MODEL METHOD— Trains You—Improves Knowlege of Drafting —QUICKLY!

Whether you want to become a draftsman, or are working as a draftsman now—or even if you are in one of many occupations where the knowledge and proper practice of drafting means advancement and higher pay—DRAFTING BY THE MODEL METHOD is for you!

In this comprehensive book, experts *John B. Mussacchia, Henri A. Fluchere* and *Melvin J. Grainger* have planned every word, every line, every drawing—made it so clear and so easy-to-understand that you quickly master the fundamentals of drafting. But best of all, you learn to work from actual models—*models which you yourself can make from materials in the book!*

So whethew you want to qualify for the field of drafting—or improve your skill and knowledge, order a copy of DRAFTING BY THE MODEL METHOD, *today* Only $3.50 each, postpaid. Satisfaction guaranteed or money back

SPECIAL OFFER TO SCHOOLS AND TEACHERS: Copies available at 25% discount.

ARCO PUBLISHING CO., INC.

Dept. AV3, 480 Lexington Ave. New York 17, N.Y.